

Beyond Heroes

Core Supplement BH20

Super Science



The Role Playing Game for all Genres

The Beyond Heroes Roleplaying Game Book XX: The Book of Superscience

Writing and Design: Marco Ferraro

The Book of Super Science Copyright © 2021 Marco Ferraro
All Rights Reserved

This is meant as an amateur free fan production. Absolutely no money is generated from it.

Wizards of the Coast, Dungeons and Dragons, and their logos are trademarks of Wizards of the Coast LLC in the United States and other countries. © 2021 Wizards. All Rights Reserved. Beyond Heroes is not affiliated with, endorsed, sponsored, or specifically approved by Wizards of the Coast LLC.

Contents

Foreword	3
The Dangers of Superscience	3
The Super Smart Character	5
Organizations	6
Super Science Ancient Classes	20
Super Science Modern Classes	24
Super Science Classes Appendices	121
Alien Technology	126
Building Gadgets	127
Superhero Gadget Examples	132
Starship Construction Guide	142
Space Travel Times	179

Foreword

The Beyond Heroes Role Playing Game is based on a heavily revised derivative version of the rules system from Advanced Dungeons and Dragons 2nd edition. It also makes extensive use of the optional point buying system as presented in the ADandD Player's Option Skills and Powers book. My primary goal was to make this system usable in any setting, from fantasy to pulp to superhero to science fiction.

Science (from Latin *scientia*, meaning "knowledge") is the ability to be intellectual and the practical activity of encompassing the systematic study of the structure and behaviour of the physical and natural world through observation and experiment. Science has been known as the only true way to acquire knowledge about reality and the nature of things.

Super-Science is a term that refers to any type of science that is considered beyond that of the normal mainstream science. It is the creation of wondrous devices of all types, from flying cars to magical wands. Indeed, few of the wonders of the superheroic age are distinguishable from sorcery to some. Geniuses (both heroes and villains) regularly invent mind-bending devices that tell physics where to shove it.

This is the third version of this book, now including information on Super Science Classes.

I. The Dangers of

Super Science

"Your scientists were so preoccupied with whether or not they could, they didn't stop to think if they should." — Ian Malcolm, Jurassic Park

This is one of the classic motivations; the researcher will seek forbidden knowledge for its own sake rather than to better the world, and with no thought of the consequences. Usually simple curiosity, coupled with ambition, will evolve into hubris before long, as caution and restraint are thrown out the steel-barred window. When a scientist says he does something for science, what this usually means is he simply doesn't care about the answers to several important questions regarding his research, like:

Does it have any potential applications — that are not immediately lethal, full of side effects, potentially genocidal, ecocidal, omnicidal or mildly herbicidal? Is there any way of gaining any replicable data or results? Where will I get test subjects? Can we make sure willing subjects are informed of all the risks involved in testing my dangerous untested invention? Are these experiments ethical? Will it rise up against humanity and/or eat me? How will I fund my research, and how can I make money off of it?

Usually, this nonchalance leads to filing away their inventions rather than seek to commercialize them or expanding the body of knowledge available to humanity. And that's with normal

research. Science rarely provides additional insight in its field; after the device is created, most Mad Scientists lose interest in documenting how they actually did it and what else can be done with those methods. Where test subjects are concerned, at their most benign they'll only threaten to do minor experiments on friends; if they get volunteers or luckily capture one, the effects will be quirky and temporary.

These benign inventors may end up in service of the corrupt corporate executive, and will be so happy to have funding they don't ask where the money comes from — or what their discoveries are being used for. "You promised you would use my discoveries for good". It can also lead to slowly slipping into evil as an inventor slips into full blown, cackling mad science as sanity and ethics are deemed "irrelevant" or hindrances to their work. Other times, the answers they come up with to the above questions will lead them to a life of supervillainy as they get research funds by robbing banks, get test subjects by kidnapping, and out-and-out make things solely for destructive purposes... or because they can.

Villains who adhere to the above principles are often very good at depicting themselves as victims and their opponents as the true villains. For starters, many will claim that they have "progress" on their side - thus evoking "progressivism" as a kind of moral imperative and implying that anyone who would dare stand in their way is an arrogant, bigoted, barbaric and just plain mean knuckle-dragger who resents knowledge of any kind. The fact that scientists themselves can be pretty arrogant and brutal on occasion never

occurs to such villains - or if it does, they don't care.

There is some truth to this — many scientists and especially mathematicians do what they do for the fun of it rather than more practical concerns — but that's little different from the rest of academia. Besides, basic research done to expand human knowledge without regard for practical applications is the sort of science that produces groundbreaking insights. Darwin studied evolution to understand life better, not because he wanted to advance the art of animal husbandry.

2. The Super Smart

Character

Super intelligence can be divided into roughly four big effects, which can be used individually or in combination:

Super learning and eidetic memory

The character can learn things very quickly and rarely forgets anything. May include Photographic Memory or Super-Speed Reading.

Advanced reasoning

The character's brain works faster, with less distractions and greater focus. At low levels they can take known facts and reach a conclusion very quickly, even crunching incredibly hard math without pen and paper. They may even be capable of incredible deduction, using few and "unrelated" facts to reach a correct conclusion. At high levels they can create new scientific theories and design a machine in moments where it would take a normal detective, scientist or engineer weeks or years.

Exceptional Perception

This character seem to have super senses by how well he can process sensory information, sometimes to the point of stopping time, reaching hyper awareness and using an in built super deductive ability. This usually allows those who aren't clumsy to dodge bullets as if they weren't there.

Manipulator Extraordinaire

Least often, this is included. Commonly an application of advanced reasoning and perception, but usually developed with actual psychological learning. The Character can predict the actions of others, notice their ticks and buttons, and

manipulate them to create plans of amazing complexity.

Super Intelligence is a difficult power to possess, not only because Intelligence equals isolation, but because it can create a pessimistic worldview. Since most super smart characters are already elbow deep in super science, the transition to Mad Scientist isn't a big one. All together, the fall into a science-related memetic disorder in the pursuit of science makes a lot of super intelligent characters become villains. It's no picnic for science heroes either, they can fall victim to the anti-intellectualism of those they want to help. That said, a super smart character has the potential to radically alter a setting and even create Singularity level tech. These changes can be positive or negative depending not just on their morality, but on how the setting treats science.

3. Organizations

HTech	Page 5
MetaTech	Page 7
M.S.I.	Page 11



High Technology

H-Tech (High Technology) began as a group of scientists organized during World War II by Nazi Germany to develop advanced technological weaponry for the German army. Although H-Tech suffered a major defeat during the war, it continued to exist secretly over the following decades, growing and building its strength.

The group of scientists grew in number over the years, and made great advances in various fields, including robotics, bioengineering, bionics, and physics.

Eventually the scientists publicly incorporated their organization under the name of High Technology (H-Tech). No one outside H-Tech or H-Tech knew of H-Tech's subversive goals and activities, nor of their scientific achievements.

Instead, H-Tech was believed by both the public and by intelligence organizations to be an international cartel dealing with the development and marketing of new technological

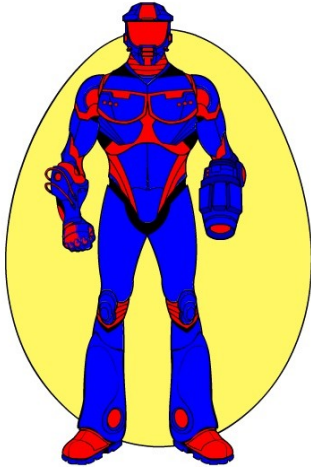
products. H-Tech gained great influence with the U.S. government in its role as a supplier of hardware and weapons to governmental and quasi-governmental agencies.

H-Tech has created a wide variety of advanced technological weaponry, and made great strides in creating androids, which the organization employs as assassins. The organization supplies arms and technology to various terrorist and subversive organizations both to foster a violent technological revolution and to make a profit.

H-Tech operatives are usually involved in research, development, manufacturing, and sales of high technology. Members of H-Tech are required to at least have a Master's degree, if not a Ph.D, in some area of science, mathematics, or business.

H-Tech's reach is worldwide, including various front organizations such as the Helio Corporation, Infinite Diversity through Infinite Combinations, and International Data Management.

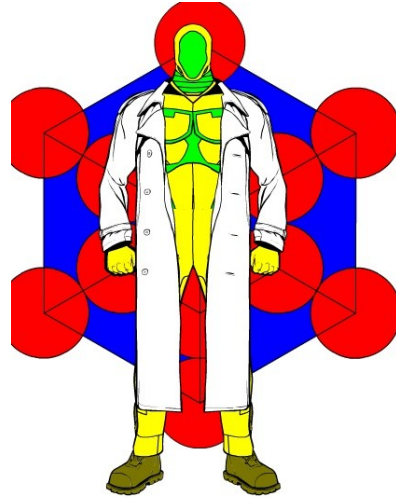
H-Tech has had a number of bases of operations, including a nuclear submarine mobile in the Atlantic Ocean; a base in the Bronx, New York; Black Mesa, Colorado; West Caldwell, New Jersey; Asia, Canada, Europe, Haiti, India, Sudan and Boca Caliente (also known as H-Tech Island), an island republic in the Caribbean.



H-Tech Agent

Real Name	Various
Alignment	Neutral Evil
INT	9
STR	9 /20 with suit
WIS	9
DEX	12
CHA	9
CON	12
MR	20
HPs	24 /100 with suit
Age	Varies
Training	Usually military
Height	Varies/ 6'2 with suit
Weight	Varies/ 250lbs with suit
Disposition	Varies
Category	3rd level Exosuit Pilot
Powers	Flight (200kph, 1km ceiling), energy emission from left hand (can be adjusted from D6 to 6D6, 20 metres), shock glove on right hand (works like a taser, at maximum effect it will knockout a person), armour.

The majority of agents are either ex military or from security backgrounds with little scruples.



H-Tech Scientist

Real Name	Various
Alignment	Neutral Evil
INT	Varies but at least 18
STR	9
WIS	Varies but at least 18
DEX	9
CHA	9
CON	9
MR	20
HPs	15
Age	Varies
Training	Specializing in some form of science
Height	Varies
Weight	Varies
Disposition	Varies
Category	Scientist in one field
Powers	Typically none but may vary

A H-Tech scientist is always among the best in their field and willing to experiment without being bothered by such things as ethics.



The company that is now MetaTech was founded by industrialist Hugh Hamil in the late 1940s and became one of the U.S. government's chief contractors for electronic parts used in aviation, missiles, and advanced weaponry.

Noted for the quality and ingenuity of its work, HamilTech expanded its operations so that by the early 1960s, it was manufacturing and assembling completed aircraft, missiles, guidance systems, and so forth, rather than simply manufacturing components for assembly elsewhere.

Instrumental in HamilTechs' expansion and success was the founding of SHADOW. SHADOW required a vast amount of high technology produced rapidly and HamilTechs' solid credentials with the government got them the lucrative position of SHADOW's major contractor.

HamilTech was involved in the design and manufacture of virtually all of SHADOW's hard technology, from its enormous hovering Cloud Shadow and manned orbital stations to personal

weaponry and microminiature surveillance instruments. HamilTech began opening plants all across the United States and Europe to cope with SHADOW's vast technological needs.

Not long afterwards, the mob took an interest in acquiring HamilTech and assigned business entrepreneur Jason Aladin to the task. Through a series of complex and disreputable business manoeuvres, everything from industrial sabotage to psychological warfare against Hamil, he succeeded in assuming the presidency and chairmanship of HamilTech.

Hamil refused to go but the next day was found hanging from his office. Aladin then changed the corporate name to MetaTech. Since then the organization has grown rapidly, with its only major rival being M.S.I.

Research Sections

Each department is involved in developing next generation equipment.

Department	Equipment
Aerotech	Aircraft engines and vehicles.
Armourtech	Exoskeletons, power armour and cargo mules.
Biotech	Bionic and cyberware.
Meditech	Hospital equipment and genetics research.
Seatech	Aquanautic equipment, boats, submarines and deep sea labs.
Spacotech	Spacecraft, orbital stations, probes and terraforming.
Wartech	Military versions of all of the above as well as new forms of weaponry and ammunition.

Now headquartered in Washington, MetaTech has branches throughout the United States (including Los Angeles, Baltimore, Cincinnati, Houston, Detroit, Chicago, and San Diego), Europe (Paris, Dublin, Hamburg, Rome) and elsewhere (Hong Kong, Manila). This has made the mob family which controls it very powerful.

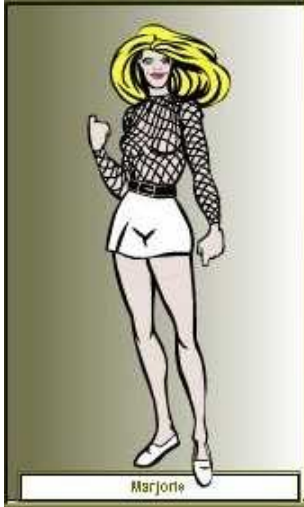
Their only concern now is the mysterious M.S.I. which will soon rival MetaTech in power, wealth and influence. It is currently the world's leading manufacturer of state of the art technology used in electronic components, munitions, automation, life support systems, scientific instruments, robotics, bionics, and air and spacecraft. It is best known for its weapon construction especially in the area of military power armour.

As well as official agencies like S.H.A.D.O.W., MetaTech also supplies equipment to less legal organizations like the Shop and various criminal organizations. In game terms MetaTech would be the ones who supply supervillains and hi-tech villain groups with their equipment.



Aladin, Jason

Alignment	Chaotic Evil
INT	18
CON	10
WIS	19
CHA	15
MR	14
STR	10
HPs	60
DEX	10
Disposition	Greedy
Age	52
Weight	140lbs
Height	5'8
Category	15th level civilian
Training	Business and economics
Jason Aladin is the CEO of MetaTech and the mob's front man.	



Marjorie

Real Name	Full name unrevealed
Alignment	Chaotic Evil
INT	10
CON	26
WIS	12
CHA	10
MR	15
STR	60
HPs	150
DEX	25
Disposition	Sadistic
Age	34
Weight	180lbs
Height	6'
Category	5th level Mutant
Powers	Invisibility, Enhanced Strength
Training	Espionage and Technical

Marjorie is Jason's right hand woman and enforcer.



Prototype

Real Name	Unrevealed
Alignment	Chaotic Evil
INT	10
CON	20
WIS	10
CHA	10
MR	12/Mach 3 (suit)
STR	15/30 (suit)
HPs	40/150 (suit)
DEX	20
Disposition	Obnoxious
Age	Unrevealed
Weight	120/300lbs (suit)
Height	5'7/6'2
Category	5th level Exo Pilot
Tech	Flight, Armour, Energy gauntlets (5D6, 15 metres range)
Training	Espionage and Military

This was the first exosuit developed by Metatech, hence the name Prototype.



Ranger

Real Name	Jackson Ditez
Alignment	Neutral Evil
INT	15
CON	20
WIS	10
CHA	10
MR	12/Mach 4 (suit)
STR	12/30 (suit)
HPs	50/300 (suit)
DEX	20
Disposition	Arrogant
Age	Unrevealed
Weight	100/350lbs
Height	5'8/6'3
Category	5th level Exo Pilot
Tech	Flight, Armour, Energy gauntlets both shoulders(6D6 each, 20 metres range), Stealth
Training	Espionage and Military

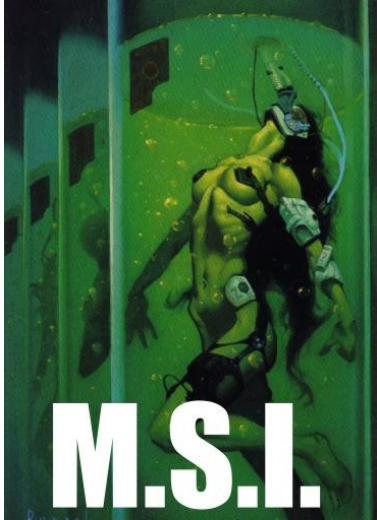
This was the second exosuit developed by Metatech, and is still in use.



Warstrike

Real Name	I - Jenny Honey, II - Lucy Dener
Alignment	I and II - Chaotic Evil
INT	I - 10/II - 8
CON	I - 11/II - 13
WIS	I - 10/II - 9
CHA	I - 10/II - 14
MR	I and II -10/Mach 5 (suit)
STR	I - 9/II - 11 (suit 30)
HPs	I and II -30/450 (suit)
DEX	I - 12/II - 13
Disposition	Greedy
Age	Unrevealed
Weight	80lbs/400lbs (suit)
Height	I - 5'6/II - 5'7 (suit 6'2)
Category	5th level Exo Pilot
Tech	Flight, Armour, Energy blaster right arm (7D6, 20 metres range), Electrical gauntlet left arm (5D6, 10 metres range)
Training	Espionage and Military

This is the most recent exosuit developed by Metatech. The first pilot was killed during a failed joint assault with the Force of July on Justice Anonymous.



The Metaphysical Studies Institute

M.S.I. is an acronym for the Metaphysical Studies Institute. According to the official publicity releases M.S.I. was formed by a group of small laboratories all over the country, combining staffs, experimental results, facilities and equipment to form the most high powered scientific organization in the history of the human race. Their goal is to expand humanity's knowledge by coordinated effort which probes in hundreds of directions at once.

To this end they began forming close ties with the metahuman, supernatural and alien communities on earth. M.S.I. facilities appeared all over the world in a matter of weeks, some in existing lab sites but many in brand new locations.

This raised many questions including how did they obtain the funding to combine so quickly? Why are their financial records hidden from the public? Why haven't they published any of their research? Why do they only rarely cooperate with scientists outside their organization? And what is their

obsession with the non human community?

Research Sections

Each department is involved in research well above what would be found in any normal facility.

Department	Research
Aquanautics	Personal equipment, boats, submarines and deep sea labs.
Extraterrestrial	Alien anatomy and equipment.
Macronautics	Dimensional exploration.
Mech	Exoskeletons, power armour and cargo mules.
Medical	Hospital equipment and genetics research. There is a sub section of Meta gene research.
Preternatural	Supernatural races and magic.
Prosthetics	Bionics and cyberware.
Star Reach	Spacecraft, orbital stations, space exploration, probes and terraforming.

An M.S.I. lab can be found in every major city in the United States, Canada, Western Europe, Australia, New Zealand and Antarctica. Each one is set up identically with the following; an Administration office, security, library, storage and a research section.

Over the years they have assisted many aliens in acclimatizing to earth culture and in return have learnt much from the

visitors. Likewise in aiding mutants to learn how to control their powers they have discovered much about the meta gene. In fact they are currently the world's leading authority in medical knowledge and manufacturer of state of the art medical technology.

M.S.I. is Metatech's main rival in supplying official agencies like S.H.A.D.O.W., various western governments, sanctioned hero groups and even non sanctioned ones who are well known for their heroic deeds. In game terms M.S.I. would be the ones who supply superheroes and hitech legal authority groups with their equipment. For a price..



Dr Kirby, Janice

Alignment	Principled
INT	25
CON	10
WIS	20
CHA	18
MR	15
STR	10
HPs	20
DEX	10
Disposition	Compassionate
Age	39
Weight	94lbs
Height	6'
Category	12th level Gadgeteer
Training	Medical, Science and Technical

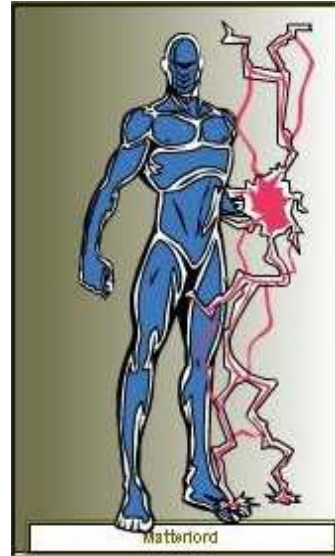
Dr Kirby is the head of the New York M.S.I. branch. Various U.S. governments have tried to get it shut down over the years due to its policy of extending sanctuary to all and not allowing aliens to be captured and dissected. After an assault by the Force of July she negotiated to move her branch to Switzerland.



Maser

Alignment	Chaotic Good
INT	12
CON	26
WIS	10
CHA	10
MR	20
STR	18
HPs	40
DEX	25
Disposition	Braggart
Age	201
Weight	180lbs
Height	5'8
Category	5th level Gramosian Mutant
Powers	Metamorph Electrical and Light, Electrical and Energy Emission
Training	Espionage and Military

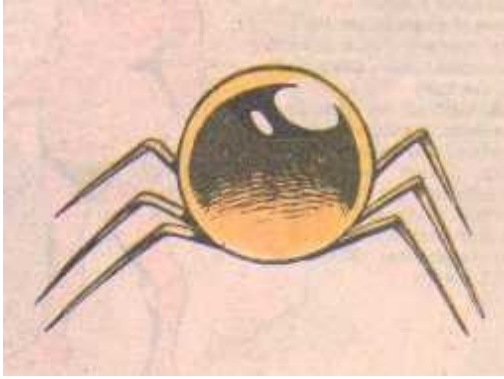
Maser fled the Tsaurid overlords of his own planet and headed to earth. He joined the M.S.I. after it moved to Switzerland and aided them in fighting off an attack from Blitzkrieg.



Matterlord

Real Name	Unrevealed
Alignment	Lawful Good
INT	15
CON	30
WIS	10
CHA	12
MR	40
STR	40
HPs	400
DEX	25
Disposition	Brooding
Age	46
Weight	180lbs
Height	6'5
Category	5th level Mutant
Powers	Metamorph Diamond (permanent), Matter Manipulation, Lightspeed Flight
Training	Unrevealed

Matterlord first turned up in New York to aid the M.S.I. while it was under attack from the Force of July. He remained with it after it moved to Switzerland.

**Pent**

Alignment	Lawful Good
INT	30
CON	25
WIS	6
CHA	6
MR	50
STR	6
HPs	30
DEX	25
Disposition	Helpful
Age	Unrevealed
Weight	Unrevealed
Height	2'
Category	9th level Pentapod Explorer
Powers	Mechakinesis I + II
Training	Who knows?

Pent was sent to earth to study humans. He found the best way to do this was to join the M.S.I.

**Phazer**

Alignment	Lawful Good
INT	15
CON	20
WIS	10
CHA	10
MR	20
STR	20
HPs	40
DEX	24
Disposition	Courteous, talkative
Age	Unrevealed
Weight	Unrevealed
Height	5'7
Category	5th level Malator Mutant
Powers	Metamorph Light, Energy Absorption, Energy Emission

Training Espionage and Military
Phazer fled the Tsauid overlords of his own planet and headed to earth. He joined the M.S.I. while it was still in New York and aided in fighting off the assault from the Force of July.



Quantum

Alignment	Chaotic Good
INT	27
CON	26
WIS	26
CHA	10
MR	20
STR	30
HPs	50
DEX	25
Disposition	Curious
Age	521
Weight	180lbs
Height	5'6
Category	Phase Warrior
Training	Espionage

An injured Quantum was forced to recuperate on earth after a particularly savage battle with the Persian gods.



Quill, Peter and Companion

Alignment	Lawful Good
INT	20
CON	30
WIS	18
CHA	15
MR	30/suit flight 80kph
STR	20
HPs	50
DEX	25
Disposition	Courageous, caring
Age	28
Weight	180lbs
Height	6'
Category	12th level Temporal Displaced
Training	Espionage and Military

Peter was time displaced from the 29th century into our time, along with his living ship Companion. Not knowing where to go, he joined the M.S.I. while it was still in New York.

He assisted in its evacuation when the Force of July launched an attack on it, and allowed Dragoon to borrow Companion in order to counter strike against the White House. He and Companion remained with the M.S.I. after it moved to Switzerland.

Peter is a master of languages, of all things mechanical and of the primal elements of life: earth, air, fire and water. He is fast, agile and strong and a master marksman, swordsman and unarmed combatant.

His advanced skin mech suit allows him to survive indefinitely in space as well as grants him some regenerative capabilities. Although he can fly, his main means of transportation is the sentient organic life form starship named Companion.



Companion

Alignment	Lawful Good
INT	25
WIS	25
CHA	14
DEX	25
Disposition	Courageous, caring
Age	28

Crew: 1 + cargo capacity for 50

A/DF: 5; MR: 5; DCR: 300

Atmosphere flight speed: Mach 24
Space flight speed: 450 million kph
Max Warp: 20

Length: 25 metres

Weight: 19 tons

Armour: Crystallion

Wings (2): 500 HPs each

Pilot's Cockpit: 750 HPs (in an emergency the cockpit can be used as an escape pod)

Main Body: 1000 HPs

Drive:

Manoeuvring Thrusters

Solar Cells Engine

Impulse Drive

Warp Drive XX

Defences:

Chaff

Energy Screen

Kinetic Screen

Invisibility Cloak

Weapon Systems:

Plasma Cannon: 2 forward

Plasma Torpedo: 2 forward launchers, 1 rear

Equipment:

Personal Transporter x2

Cargo Transporter x1

Widgets (self-extensions) x20

Companion is a highly powerful sentient energy form. She most often exists in the form of a starship, but can alter her structure into many different forms.

In addition, she has on a number of feminine characteristics, such as a mothering type instinct for Peter with who she is telepathically bonded.

Companion can make herself invisible to both living beings and to sensors.

She can speak to other beings through sound or radio communications, either as a starship or through her Widgets.

Companion can create Widgets--small, mobile droids able to scout out

situations, gather information, and then return to her. Widgets can fight, use laser surgery (laced with antibiotics) to treat minor cuts, and can operate autonomously when unable to communicate with Companion herself.



Shatterforce

Real Name	Susana Gheij
Alignment	Chaotic Good
INT	12
CON	25
WIS	10
CHA	10
MR	30
STR	15
HPs	40
DEX	25
Disposition	Maternal
Age	24
Weight	100lbs
Height	5'7
Category	5th level Mutant
Powers	Vibration Emission, Sonic Emission
Training	Physical

Susana was accidentally rifted through from an alternate earth by an injured Quantum after coming to her aid against the Persian gods. She then joined up with the M.S.I.



Sza-Dal

Alignment	Chaotic Good
INT	18
CON	30
WIS	30
CHA	10
MR	20/200kph
STR	15
HPs	40
DEX	25
Disposition	Rash, talkative
Age	102
Weight	70lbs
Height	6'
Category	5th level Demon
Powers	Winged Flight, Cosmic Awareness
Training	Espionage and Military

Sza is one of the rare few type of Demon who is attempting to reform. The circumstance leading to this remain unknown.



Tal Mu

Alignment	Chaotic Good
INT	15
CON	30
WIS	18
CHA	10
MR	40
STR	20
HPs	50
DEX	25
Disposition	Confident, exhibitionist
Age	85
Weight	180lbs
Height	6'
Category	5th level Lemurian Mutant
Powers	Manipulate Kinetic, Teleport, Enhanced Agility
Training	Espionage and Military

Tal was sent to explore the surface world to see if ties should be renewed. She joined the M.S.I. while it was in Washington and assisted them during the S.L.J.'s assault. She remained with them after they moved to Switzerland.

4. Super Science

Ancient Classes

ARCHIATOR ANCIENT

Archiators are super genius level characters who specialise in medicine. Whether that be through the creation of bionniks, biomanipulation or drugs.

Step 1: Attributes

Roll attributes as normal but INT is raised to 18 +D6. A DEX of at least 14 is desirable. Hit points = CON +4, +4 per level.

Step 2: Skills

This character is a natural scholar and was a genius at University. Any course can be done within ½ the normal time and always gain +1 in any skill that he takes.

Skills are chosen in the normal manner but also gain the following free ones;

- Knowledge Magic
- Science Biology
- Science Chemistry
- Science Mathematics
- Science Medicine
- Science Physics

Step 3: Abilities

Archiator's have three different areas they can specialise in. In each case they can build, repair, custom modify and design the item the ability applies to. Choose one of the following special abilities;

Chemiae - This character specialises in studying and modifying existing drugs as well as designing and creating new ones. He is fully familiar with common medical and recreational drugs, drug

interactions, dosages, the use/distribution of drugs, their effects on the human body, and other biological applications.

Bonus free skills: Knowledge Drugs, Knowledge Herbalism, Toxicology, and +1 to Science Chemistry.

Clockwork Bionniks - This character specialises in creating, repairing and modifying bionnik limbs and the specialised magicked wires which allows the recipient to control the parts. He is a specialist in mana powered bionniks and surgery.

He can remove limbs and organs and surgically attach bionnik replacements (artificial clockwork limbs). He can also repair them.

Bonus free skills: Blacksmith, Artistry Sculpt, Metallurgy, and +1 to Science Physics.

Eugenico - This character specialises in manipulating genetic material in order to change heredity traits or produce biological products. He can analyse, alter and recreate any genes he has previously studied.

Genetically engineered products include bacteria, drugs, plants that are resistant to diseases and insects or that yield fruits or vegetables with desired quantities, and of course animal and human mutations. He can also clone an existing or missing limb or organ.

Bonus free skills: Science Botany, Science Zoology, Science Agriculture, and +1 to Science Biology.

Additionally Archiators start with 35 Points to spend on any of the following abilities. As they earn more experience they may buy or rebuy more abilities.

Bonus Skills

Cost: 10

The character can choose an additional six skills which need not be related to his work.

Followers

Cost: 5

The character can have one assistant or two apprentice per 5 CHA.

Genius

Cost: 5

The character has a chance of understanding any alien equipment, gene or drug from his specialty. The chance is equal to his WIS x2%, +5% each time retaken.

HP Bonus

Cost: 10

CON +6 HP instead of 4, +6 per level.

Immune

Cost: 10

For characters with Eugenio or Chemiae only. Somehow the character has made himself immune to either genetic alteration or the effects of any drugs.

Keen Eye

Cost: 5

The character can figure out exactly how much strain/load or damage any given object can take with impressive precision. He can also detect any potential weak points in an object.

Micronization Expert

Cost: 5

The hero can remake anything that exists to a reduced size while retaining all of it's functions. With this talent the character can reduce items to 10% of their original size without losing any of their initial performance. Anything from

modified cell phones and strap on gizmos to super powerful microscopes built into a pair of goggles. The power of a jet engine can be condensed to a jet pack with micro stabilizers and navigation display.

Specialty

Cost: 10

This buys the character another Archiator specialty.

Spellcast

Cost: 5

The cost is for each sphere of magic the Archiator wants to learn from. The first sphere is free and must be Transmutanic, each subsequent sphere costs 5 points. He starts with one spell per INT point over 9, he can learn an equal amount per level. Thus INT 13 = 3 spells +3 per level.

The spells can come from any sphere except Divine. However; spells can only ever be embedded into the bionniks, potions or drugs, never cast externally like other mages. Archiators can tap into the world's natural mana at a rate of INT + WIS x4. Mana is recovered at a rate of 10 per hour if remain active (but not using magic) and 20 per hour if asleep.

Unbelievable

Cost: 5

The Archiator can temporarily repair an item with just whatever he finds lying around. There's a strong element of luck with this ability. Once he has finished using the item though it is useless until it can be repaired properly.

Step 4: Careers

Possible related careers include; Surgeon, Practioner, Pharmacist, and Doctor.

TINKER

The brilliant inventor, the mad scientist, the tinkerer sets out into the world armed with little but his mind and a pile of items no one else would have thought of as weapons. Tinkerers adventure for a variety of reasons. Some adventure to find new construction material, or to study the magical technology of exotic cultures.

Some adventure simply for the sake of broadening their experience, for the ability to keep an open mind is an essential talent for tinkerers. But most of them adventure for the lure of testing and showing off their latest inventions.

Tinkerers tend to be perceived as brilliant but eccentric, having potential but not the focus to do much with it, or possessing an insight to accomplish the impossible but not the wisdom to foresee the consequences.

Tinkers are among the smartest of the adventurers setting out to explore and conquer the known world. The creators of incredible inventions from steam saws to siege engines, their devices allow them to overcome nearly any situation — and if they don't have the device they need, they just might be able to design and create a new one on the spot.

As tinkers begin to spread to all the races, the idea of the “typical tinker” may continue to change, but inventiveness and intelligence will always be an important part. For some, the smell of oil is akin to that of a fine perfume, the rush of invention is the only motivation one needs, and the eternal battle against corrosion is a constant annoyance.

These individuals, the tinkers, are exemplars of the unfettered creative spirit. It is this creative spirit, the constant thirst for new ideas, that propels them to seek the unknown, whether it be found in a library or in the dark depths of an ancient tomb. Supported by a vast array of custom automatons, an experienced tinker, while not a fierce combatant on his own, commands an exceptionally versatile squadron that more than makes up for his own deficiencies.

Step 1: Attributes

Roll attributes as normal but INT is raised to 18 +D6 and WIS is +4. A DEX of at least 14 is desirable. Hit points = CON +4, +4 per level.

Step 2: Skills

This character is a natural scholar and a genius. Any course can be done within half the normal time and always gain +1 in any skill that he takes. Skills are chosen in the normal manner but also gain the following free ones;

Armourer
Blacksmith
Metallurgy
Science Mathematics
Science Physics
Weaponsmith

Step 3: Abilities

Tinkers gain the following ability free; **Gizmoteer** - Tinker's can build, repair, custom modify and design various items which already exist in their era. Weapons can have their damage and range increased up to +50%, and HPs, AC and speed increased up to +50% prior to attaching any armour.

Additionally Tinkers start with 35 Points to spend on any of the following

abilities. As they earn more experience they may buy or rebuy more abilities.

AC Bonus

Cost: 5

The Tinker can increase the AC of any armour by an additional 1. The bonus can be added at any time.

Bonus Skills

Cost: 10

The character can choose an additional six skills which need not be related to his work.

Damage Bonus

Cost: 5

The Tinker can increase the damage of any weapon or ammunition by an additional +1. The bonus can be added at any time.

Detect Hidden

Cost: 5

The character gains +1 per 5 INT to detect a hidden object, door, person, etc.

Fabrications

Cost: 10

This character can also build fantastic dwellings. For creation rules use the headquarters section. Bonus free skills: Knowledge Architecture, Stonemason and Fortifications.

Genius

Cost: 5

The character has a chance of understanding any alien equipment he has never seen before. The chance is equal to his WIS x2%, +5% each time retaken.

HP Bonus

Cost: 10

CON +6 HP instead of 4, +6 per level.

Keen Eye

Cost: 5

The character can figure out exactly how much strain/load or damage any given object can take with impressive precision. He can also detect any potential weak points in an object.

Range Boost

Cost: 5

The Tinker can increase the range of any weapon by an additional +50%. The bonus can be added at any time.

Unbelievable

Cost: 10

The Tinker can temporarily repair an item with just whatever he finds lying around. There's a strong element of luck with this ability. Once he has finished using the item though it is useless until it can be repaired properly.

Step 4: Career

Possible related careers include; Architect, Weapon Maker and Inventor.

4. Super Science

Modern Classes

This table includes any classes related to super science whether a user of it or altered by it.

The Abducted

This class represents people who have been taken by extraterrestrial aliens. These beings travel to Earth from some other planet or dimension and conduct experiments on a chosen few. The abduction usually follows this pattern:

Capture (abductees taken from area and find themselves in the ship).

Examination (a seeming medical or physiological exam).

Loss of Time (many abductees suffer from periods of time removed from their memory, often coming back to them later).

Return (returned, sometimes with environmental changes).

Aftermath (sickness, new phobias, ridicule, etc).

Step 1: Attributes

Roll up as normal. HPs are CON +4. The experiment type will determine what attributes are altered.

Step 2: Skills

Varies. The player and GM need to determine together what type of person he will be. Will you make him a high school geek, an archaeological scholar or a Vietnam vet?

Step 3: Abilities

Roll to determine how many surgical experiments were performed

01-50 1

51-75 2

76-90 3

91-00 4

Choose or roll to determine what surgical experiments the aliens performed. Then do likewise with alien origins and motivations in the table further down.

01-15 Brain; Use 50 points to buy Mental Manipulation powers.

Disadvantage; suffer from random intense headaches.

16-35 Muscle; Gain Enhanced Leap, Movement, Strength, Stamina, and 20 points which may be used on either STR, DEX, CON or HPs.

Disadvantage; suffer from epilepsy.

36-50 Organs; Gain Alter Metabolism, Enhanced Regeneration at rank 3 (that's 1 short of immortal) and 3 Spare Organs. Disadvantage; suffer from excruciating internal pain at random intervals (at least twice per day).

51-65 Senses; Gain Enhanced Hearing, Enhanced Smell, Enhanced Taste, Enhanced Touch, Night vision, Telescopic vision at rank 4, and Micro vision at rank 1.

Disadvantage; bright lights, loud noises and strong smells are painful. Have almost zero pain tolerance.

66-80 Skeleton; Gain Claws, Enhanced Molecular Structure at rank 2, Fangs, Density Manipulation and +20 HPs.

Disadvantage; prone to random psychotic bouts.

81-00 Skin; Gain Wall Crawl, Enhanced Charisma, Weapon Limb at rank 2, Friction Control, and Shape Shift at rank 2.

Disadvantage; don't feel any pain. In other words never notice injuries and may bleed to death.

Step 4: Careers

The character can take any career desired.

The Abductor's Section

This is the section for creating the alien back story for your character.

Step 1: Abductor's Origin

Where do the abductors come from? Use the Cosmic Creation Netbook to properly create the aliens and their habitat.

01-33 Extraterrestrial; from another planet within this universe.

34-66 Interdimensional; from another reality within this universe.

91-00 Extradimensional; from another universe altogether.

Step 2: Abductor's Motivation

Why did they do it?

01-20 Completely unknown, maybe they were bored. They are never seen again.

21-40 The aliens are amoral and just wanted to use the character as a guinea pig for their own scientific research.

25% chance of their checking up on the character every D4 weeks.

41-60 The aliens are benevolent and wanted to give human evolution the next kick start. 25% chance of their checking up on the character every D4 weeks.

61-70 The aliens are benevolent and on the run from an evil enemy. The character was altered to help them in their war. They remain a constant part of his life continuing with his training and briefings.

71-80 The aliens are benevolent and are aware of an imminent invasion of earth. After altering the character to fight this invasion they get the hell out of Dodge. Not seen again.

81-00 The aliens are malevolent and are the invaders. The character was altered to help them take over. To that end they have included an implant (whether biological or electrical) to control him. He must obey all commands given by the aliens. Any attempts to rebel are at -10 vs Possession and may be followed by severe pain. The player may eventually find a way to remove the implant. GM's choice whether he is simply a front line soldier or a spy.

Alien Artifact

Alien Artifacts are considered by some to be among the most powerful weapons in the known universe. Having the ability to affect and use fundamental forces of the known universe including electromagnetic energies such as gravity, radiation, heat, light, and powerful blasts of concussive force. It is also theorized that these Artifacts have a basis in other dimensional energies and intelligence...

Step 1: Attributes

Roll up attributes as normal. HPs are CON +4, +4 per level.

Step 2: Skills

Choose skills in the normal manner.

Step 3: Abilities

No abilities for the character, only for the Artifact.

The Artifact - Start with 30 points to use on the Artifact Creation table below. Then determine with your GM how you found it (if you have found it already). Possibilities could include you find it in a temple in a third world country (eg. Vietnam, Laos, Africa, etc), were near when a dimensional portal opened dropping it through, found it in a crashed spaceship, etc. The Artifact need not be supernatural in origin, it could well be a scientific device so far beyond us as to seem magical.

Step 4: Careers

The character can take any career desired.

Step 5: Disadvantages

The character is bonded to his Artifact whether he wants to keep it or not. Even if separated it will eventually find its

way back to him, no matter how many corpses it has to go through. +20 points.

Separation - If separated the Character not only loses all the abilities imparted by the Artifact but also suffers -1 on all attributes, Thaco and AC. He then suffers an additional -1 for every week separated, -1 day per level.

eg. Dr Destiny at 3rd level has lost his helmet, thus he suffers -1 every 5 days. At 5th level it would be every 3 days. At 8th level (1 day) it is reduced by -1 hour per level. eg. at 8th level he suffers -1 every 23 hours. At 15th level it would be every 16 hours. +20 points.

Alien Artifact Creation

Table

Roll in each of the sections.

Step 1: Type

Choose or roll for the Artifact type. With the GM's permission the Artifact may be composed of multiple parts; such as 2 rings, a bracelet and a helmet. Then decide whether the Artifact has an ancient look to it or a futuristic one.

01-03	Armour
10-12	Shield
13-15	Helmet
19-21	Gauntlet
22-24	Sword
25-27	Axe
28-30	Bow
31-33	Crossbow
34-36	Mace
37-39	Knife
40-42	Hammer
43-45	Flail
46-48	Staff
49-51	Spear
52-54	Halberd
55-57	Trident

58-60	Pistol
61-63	Rifle
64-66	Machine Gun
67-69	Bracelet
70-72	Ring
73-75	Necklace
76-78	Amulet
79-81	Crown
82-84	Earring
85-86	Belt
87-88	Crown
89-90	Wand
91-92	Sceptre
93-94	Carpet
95-96	Other Weapon
97-98	Other Jewellery
99-00	Other Object (eg. clock, skull, etc)

Step 2: History

Create a history for the Artifact. Why was it created? What was it for (has it fulfilled its purpose)? How has it been used in the meantime? Why is it here now? Or will its history remain a mystery forever? Note that the Artifact may lie to its current user about its past and purpose. Only the GM will know for certain.

01-15	Artifact created by accident
16-30	Artifact belonged to a now departed or dead entity
31-44	Artifact created to perform specific task or defeat specific foe
45-58	Artifact part of a set which has been separated or destroyed
59-72	Artifact is a lost religious artifact
73-86	Artifact created for character
87-00	Unknown

Step 3: Computer Intelligence

If you choose to give the Artifact an artificial intelligence determine its INT and WIS level by rolling once for each attribute on the following table (when

rolling the D6s no extra rolls apply, its just a straight 3D6 or whatever);

01-17	3D6
18-34	3D6+1
35-51	3D6+2
52-68	3D6+4
69-85	4D6
86-00	5D6

Step 4: Ego

If the Artifact is intelligent determine it's Ego by adding its INT to its WIS. Then do the same for your character. For every 5 points that the Artifact's ego is greater than yours roll on the table below for a demand that it has. Failure to follow its demand/s could have severe consequences (such as cutting off all powers at a critical combat moment). If roll the same demand twice then reroll until you get a new one;

01-17	Removal of all other associates the Artifact doesn't like or who have upset it.
18-34	Removal of any other Artifacts, magical or otherwise.
35-51	Total obedience from the welder so the Artifact can pursue its own agenda.
52-68	The welder must create a new religion with the Artifact as its god and try to convert others to worship it.
69-85	Begin associating with people the Artifact likes.
86-00	Destroy all other Weapons or Artifacts encountered.

Step 5: Alignment

Only pick an alignment if the Artifact is intelligent. Roll on the Disposition and Motivation tables. Using what you roll as a guide determine its likely alignment.

Step 6: Abilities

All Artifacts - Are indestructible by conventional means. Give its owner +1

Thac0 and AC when using it. Affects all Infinite and supernatural beings and cosmic entities. Does double the normal damage for its type. If separated from the Artifact the most recent owner can teleport it back to himself so long as it is within his line of sight.

Each Artifact will have a certain amount of powers which can be bought using those 30 points the character has. As the character increases in levels he also becomes more in tune with his Artifact and it's abilities. Thus the powers it bestows also increase with each level as it would for a meta human.

The character can instead choose to use those 30 points to increase the Artifact's normal damage by +D6 per 5 points spent.

Intelligent Artifacts - In addition to the above can speak to the welder verbally and telepathically. Grants an additional +3 to save vs any form of mind control, possession or anything else that might cause him to involuntarily remove the Artifact.

The character can instead choose to use those 30 points to give the Artifact the ability to cast spells. Spells cost 5 points per sphere. It starts with one spell per INT point over 9, and can learn an equal amount per level. Thus INT 13 = 3 spells +3 per level. The spells can come from any sphere of magic and in any combination.

Step 7: Power Source

What fuels the Artifact?

01-18 **Solar**; On a sunny day a solar converter can continually provide power all day. The fuel is free, but there just isn't that much available after nightfall.

Once there's no sun it will continue to work actively for 1 hour for every 2 hours of sunlight it received during the day, or on standby mode for 1 hour for every 1 hour of sunlight.

19-36 **Nuclear**; A miniaturised reactor (essentially the same as a nuclear submarine's) which offers up to 5 years before needing to be refuelled. The power source is radioactive but the item is shielded so no radiation is emitted.

Unless of course you want it to leak.

37-54 **Fission**; This produces power by splitting atoms, generating electricity without the radiation. Good for 2 years.

55-72 **Fusion**; This generates energy by fusing hydrogen into helium through a thermonuclear reaction. Good for 200 years.

73-90 **Antimatter**; This produces energy through the mutual annihilation of matter and antimatter. A gram runs it for 5 years.

91-92 **Cosmic**; This produces power through means unexplainable by modern science. For example, a cosmic power plant may draw energy from another antimatter dimension, or even a magical universe. It provides power indefinitely.

93-94 **Mana**; This engine is a technomagic device that gathers ambient magical energy (in the same way a mana organ does in a magical creature) and transform it into electrical power. At full charge the mana is good for 1 week.

95-96 **Bio**; The engine is a bio-mechanical machine living inside the object, eating food and producing bioelectrical or mechanical energy. It generates energy using food and atmospheric oxygen, and has a "mouth" into which water and food (anything biological) must be placed. Provides power for 24 hours before requiring feeding again.

97-98 **Bound**; This object is powered by a bound demon, elemental or some other entity. It can provide power for up to 18 hours before requiring rest for 2 hours to 'recharge'. If it ever escapes be somewhere else.

99-00 **Soulburner**; This is a necromantic object fuelled by life-force. It does not use normal fuel. Instead, an intelligent, sentient being must be sacrificed on the object. The victim's soul then powers the object for 1 month.

Step 8: Disadvantages

What other consequences has discovering the Artifact created?

01-17 Artifact is hunted by its twin seeking to either destroy it or be reunited.

18-34 Discovery of Artifact has awoken something.

35-52 Artifact is hunted by a cult bent on either its capture or destruction.

53-68 Artifact is hunted by its original owner who wants it back.

69-83 Artifact comes and goes at random never revealing where it goes.

84-00 Artifact is a famous religious artifact recognisable to everyone. This has upset the religion it belongs to.

Android

An Android is a robot designed to closely resemble the lifeform which built it. Androids have true Artificial Intelligence, are capable of self programming, are extremely versatile and can mimic human emotions perfectly with distinct personalities. The highest quality models are indistinguishable from real sentients except by sensor or close examination.

Step 1: Attributes

Roll attributes as normal. Hit points = CON +12, but do not increase per level. HPs can only increase by being bought.

Step 2: Skills

Choose skills in the normal manner but Androids only require one day to fully assimilate them. At the start they can choose any six skills free. With access to the internet and other computers literally any skill can be learnt, no limits.

Step 3: Abilities

All Androids start with the following abilities free;

Android Body - Androids start with 50 points to create their body and then enhance it. Use the equipment from the Exo Pilot Class to create an Android body.

Alternatively instead of buying from the equipment section the character can spend their 50 points on buying powers. The only thing is that each power instead of being organic is represented by a mechanical equivalent. The powers should determine what parts are artificial. For Super Strength the limbs and skeleton are artificial. Super speed would come from a leg replacement.

Vision powers require at least one man made eye.

Step 4: Careers

The character can take any career desired although his appearance may influence it. Instead of an organization being responsible for the Android's creation it could be an individual with the same status.

Examples include Modular Man who was created by a lone Professor in the Wildcards novels and eventually left him after his creator went insane. A more famous example would be the Marvel comics character the Vision who was created by Ultron (another Android) to kill the Avengers but eventually rebelled against him and joined their group.

Unusual Characteristics

In this characters instance unusual characteristics would refer to highly visible robotic parts which cant be easily hidden.

Colour

Roll on this table several times; once for the skin of the body, again for any hair and again for any artificial eyes.

- 01-10 Chrome Red
- 11-20 Chrome Blue
- 21-30 Chrome Yellow
- 31-40 Chrome Green
- 41-50 Gold
- 51-60 Silver
- 61-70 Bronze
- 71-80 White
- 81-90 Black
- 91-00 Transparent

Artificial Eyes

What type of eyes does the character have?

- 01-08 Very small; -2 to hit eyes if targeted by enemies.
- 09-16 Small; -1 to hit eyes if targeted by enemies.
- 17-28 Completely normal.
- 29-36 Large; +10% greater sight range.
- 37-44 Very Large; +20% greater sight range.
- 45-52 Oval shape; 180 degree vision.
- 53-60 Glowing; +1 to intimidate others.
- 61-68 Reptilian; underwater nightvision equal to half normal range.
- 69-76 Fish; underwater nightvision identical to normal sight range.
- 77-84 Cat; nightvision equal to half normal range.
- 85-92 Insect; 360 degree vision.
- 93-00 Third Eye; see the invisible.

Size

How big is the character?

- 01-08 1ft +D10 inches
- 09-16 2ft +D10 inches
- 17-24 3ft +D10 inches
- 25-30 4ft +D10 inches
- 31-44 5ft +D10 inches
- 45-52 6ft +D10 inches
- 53-60 7ft +D10 inches
- 61-68 8ft +D10 inches
- 69-76 9ft +D10 inches
- 77-84 10ft +D10 inches
- 85-92 11ft +D10 inches
- 93-00 12ft +D10 inches

The People behind the

Machine

Determine who created the Android or Automaton;

- 01-20 Choose a non profit corporation. eg. Greenpeace.
- 21-40 Choose a private corporation. eg. Enron.
- 41-55 Researcher and his family who work from home.

56-70 Government department. Choose a country and agency.

71-80 Mad scientist.

81-90 Genius superhero.

91-00 Genius supervillain.

Relationship with the people: is the character still in contact with them?

01-08 Still with them and very well treated.

17-24 Still with them and dissatisfied. Treated with disdain by them but still valued.

25-32 Still with them and treated like a slave. Is constantly watched, escape will take some planning.

33-44 Group closed down or dead.

45-52 Group still exists but has moved onto other experiments or projects. The character has been forgotten.

77-84 Escaped group after a major fight and some damage to equipment. Hunted by them at Difficult level. Want him recaptured.

85-92 Escaped group after a major battle and one or more deaths. Hunted by them at Severe level. Want him recaptured.

93-00 Escaped group after destroying the facility he was kept at with multiple deaths resulting. Hunted by them at Extreme level unless the GM decides the organization has suffered too greatly financially, in which case they may only be able to afford to hunt him at Severe or even Difficult level. Want him destroyed.

Archiator

Archiators are super genius level characters who specialise in medicine. Whether that be through bionics, eugenics or drugs.

Step 1: Attributes

Roll attributes as normal but INT is raised to 18 +D6. A DEX of at least 14 is desirable. Hit points = CON +4, +4 per level.

Step 2: Skills

This character is a natural scholar and was a genius at University. Any course can be done within ½ the normal time and always gain +1 in any skill that he takes. Skills are chosen in the normal manner but also gain the following free ones;

Science Biology
 Science Botany
 Science Chemistry
 Science Mathematics
 Science Medicine
 Science Physics

Step 3: Abilities

Archiator's have three different areas they can specialise in. In each case they can build, repair, custom modify and design the item the ability applies to. Weapons can have their damage and range increased up to +50%, and HPs, AR and speed increased up to +50% prior to attaching any armour. Choose one of the following special abilities;

Cybernetics - This character specialises in creating, repairing and modifying bionic organs and limbs and the specialised neural circuitry which allows the recipient to control cybernetic parts. He is a specialist in cybernetics, bionics and surgery.

He can remove limbs and organs and surgically attach cyber replacements (artificial organs and prosthetics). He can also repair cyber prosthetics. An example is Steel.

Bonus free skills: Science Biotechnology, Engineer Computer, Engineer Electrical and Technical Bionics/Cyber.

Eugenics - This character specialises in manipulating DNA (genetic material) in order to change heredity traits or produce biological products. He can analyse, alter and recreate any genes he has previously studied.

Genetically engineered products include bacteria, drugs, plants that are resistant to diseases and insects or that yield fruits or vegetables with desired quantities, and of course animal and human mutations. He can also clone an existing or missing limb or organ. An example is Mr Sinister.

Bonus free skills: Science Genetics, Science Zoology, Science Agriculture and Science Horticulture.

Pharmaceutical - This character specialises in studying and modifying existing drugs as well as designing and creating new ones. He is fully familiar with common medical and recreational drugs, drug interactions, dosages, the use/distribution of drugs, their effects on the human body, and other biological applications.. An example is Henry Pym.

Bonus free skills: Science Pharmacy, Engineer Chemical, Knowledge Herbalism and Science Xenocology. Additionally Archiators start with 40 Points to spend on any of the following

abilities. As they earn more experience they may buy or rebuy more abilities.

Bonus Skills

Cost: 10

The character can choose an additional six skills which need not be related to his work.

Followers

Cost: 10

The character can have one assistant per 5 CHA.

Genius

Cost: 5

The character has a chance of understanding any alien equipment, gene or drug from his specialty. The chance is equal to his WIS x2%, +5% each time retaken.

HP Bonus

Cost: 10

CON +6 HP instead of 4, +6 per level.

Immune

Cost: 10

For characters with Eugenics or Pharmaceutical only. Somehow the character has made himself immune to either genetic alteration or the effects of any drugs.

Keen Eye

Cost: 5

The character can figure out exactly how much strain/load or damage any given object can take with impressive precision. He can also detect any potential weak points in an object.

Micronization Expert

Cost: 5

The hero can remake anything that exists to a reduced size while retaining all of

it's functions. With this talent the character can reduce items to 10% of their original size without losing any of their initial performance. Anything from modified cell phones and strap on gizmos to super powerful microscopes built into a pair of goggles. The power of a jet engine can be condensed to a jet pack with micro stabilizers and navigation display.

Specialty

Cost: 10

This buys the character another Archiator specialty.

Unbelievable

Cost: 5

The Archiator can temporarily repair an item with just whatever he finds lying around. There's a strong element of luck with this ability. Once he has finished using the item though it is useless until it can be repaired properly.

WIS Bonus

Cost: 10

It only costs 1 point to increase the character's WIS.

Step 4: Careers

Possible related careers include; Specialist Surgeon, Specialist Practitioner, Pharmacist, Cybernetics Designer and Doctor.

Artificial Intelligence

The term Artificial Intelligence (AI) was first used by John McCarthy who considers it to mean "the science and engineering of making intelligent machines". It can also refer to intelligence as exhibited by an artificial (man-made, non-natural, manufactured) entity. One of the biggest difficulties with AI is that of comprehension. Many devices have been created that can do amazing things but critics of AI claim that no actual comprehension by the AI machine has taken place.

However the more common meaning of AI is a truly self-aware, self-sustaining program capable of directing themselves independently of human control not linked to any host or grid; in other words, an artificial sentient lifeform. A digital intelligence is potentially much more capable of preserving itself than a human because it can feasibly replicate and transmit information between those copies, essentially having many iterations of itself.

The character plays an A.I. who is as fully aware as any human. He can play it as inquisitive, starting with no conception of anything at first and then its personality develops based on its interactions with others. Or from the start he is determined to expand, replicate, become human, become God..

This was a difficult class to design and would require a lot of work by both the GM and player to develop their own cyberspace universe for the character to inhabit. However it is potentially well worth the roleplaying experience. Good places for ideas would be the Otherworld novels, and the Shadowrun and Cyberpunk rpgs.

Step 1: Origin

Each AI has an origin, what it used to be (usually a program of some sort) and its original duties. For example an AI might have been a marketing analysis tool, a security program, or overseeing a factory. Even though the AI has developed its own sapience it never quite loses the programming of its origin. The origin of an AI player character informs its personality, outlook, and inherent programming.

Alternatively he may be a character who had his mind transferred into a computer or the internet (by his choice or not) and then his physical body died trapping him.

01-25 Former obsolete program which has gained sentience.

26-60 Deliberately created sentient program.

61-75 Human/humanoid lifeform which has somehow become trapped in the computer.

76-90 Extraterrestrial lifeform which has somehow become trapped in the computer.

91-00 Extradimensional lifeform which has somehow become trapped in the computer.

Step 2: Attributes

Attributes are rolled as normal but only apply in the virtual world against other programs or entities. Hit points = CON +12, but do not increase per level. HPs can only increase by being bought. The character only exists in the virtual world though, his attributes do not exist in our world. AI characters earn experience points as do normal characters. They may improve attributes, improve or buy new skills, and buy or buy off qualities as would any other character. When an

AI's Mental attributes are increased it is a reflection of its increased memory and processing capacity, call it RAM, DDR or whatever you like.

Step 3: Skills

Choose skills in the normal manner but AIs only require one day to fully assimilate them. At the start they can choose any six skills free. With access to the internet and other computers literally any skill can be learnt, no limits.

Step 4: Abilities

A.I.s gain the following abilities free;
Digital Body - As a being made purely of data AIs are immune to aging, diseases and toxins and don't need to sleep. He is composed of Software Programs/Cyber Data/Digital Memory, allowing him to interact with objects such as machines, robots, computers and other devices such as cars, phones, refrigerators or any other object that runs on electricity.

By entering a computer or some other form of database the A.I. will instantly know everything that is stored in there. However they require some form of storage device to live in whether a computer, USB, the internet or disc.

A.I.s start with 35 points to increase attributes or buy powers with, the only thing is that each power instead of being organic is represented by a virtual reality equivalent.

Create Body

Cost: 10

By entering any electrical machine the A.I. will be able to alter its physical shape. This can be used to completely reorganize machines by adding and removing parts or making them

humanoid complete with functioning arms and legs. eg. The front blade from a bulldozer could be added to the front of a car. A stereo could be merged into a tv.

Electrical Shield

Cost: 10

The A.I. can form a shield or wall of electricity (10 centimetres per WIS thick, +30 centimetres per level) x (30 centimetres per WIS tall, 30 centimetres per level) x (15 centimetres per WIS radius, 30 centimetres per level) around any object he is currently within. Does D6 damage per 5 WIS for every 30 centimetres the victim walks through

Fix

Cost: 5

By entering any electrical machine the A.I. will instantly be able to make it function no matter how damaged it or what it is missing.

Jaunt

Cost: 10

This A.I. can travel without the need for cables. He can transmit himself along any radio or microwaves at a rate of 1 metre per INT per second, +1 metre per level.

Jump

Cost: 5

The A.I. can transmit himself into any computer linked to his current one either by cable or internet. He can do likewise with storage devices.

Lightning

Cost: 10

The A.I. can fire lightning bolts from any object he is inhabiting which do D6 per 5 WIS +D6 per level, over 1 metre per WIS per level.

Magnetic Pulse

Cost: 5

The A.I. can fire electro magnetic pulse bolts from any object he is inhabiting which will disrupt and ruin any electrical equipment (except his own) over 1 metre per WIS per level.

Manipulate

Cost: 5

The A.I. can control and manipulate the binary visible computer information known as data allowing him to alter, create or even destroy information stored in computers and other electrical machines. This also includes being able to do likewise to computer programs.

Natural Enemy

Cost: 5

A.I.s harbour a deep loathing for computer viruses and worms. In fact he may actively seek it out for the express purpose of destroying it, usually due to some need for revenge. Choose 1 enemy type (either viruses or worms) and gain the following when fighting it; +2 Thac0 and AC. +2 attacks and initiative. This increases by +1 to all bonuses listed every 3 levels. Further another enemy may be chosen at 4th level.

Radiowaves

Cost: 5

It is possible to distort all or selected radio frequencies within a radius of INT x1 metre radius, +3 per level. Or boost the range of a single radio transmitter by 100%.

See Spectrum

Cost: 5

With a range of line of sight the character has the ability to see most of the EM spectrum. This includes standard visible light, infrared, ultraviolet, power

waves (can see if machines are turned on/have an energy flow), radio waves (can actually see radio signals, transmissions, and receptions), and higher forms of EM energy like X-rays and gamma rays (so he can see areas and beings of radiation).

Through a simple wall or door the character can also see living creatures - he can pick them out by their body heat and neuroelectric activity. Any obstacle thicker than about 12 inches, made out of metal, or that has a large number of wires carrying electricity within it will be impossible to see through.

Step 5: Careers

Not really possible unless someone comes up with something really creative.

Step 6: Disadvantages

AI's can be trapped in a node that gets isolated from the rest of the internet. An AI can only be destroyed under the following circumstances; if the system in which an AI is running or trapped is physically destroyed or if attribute loss from virtual reality damage overflow reduces one of its mental attributes to zero.

The People behind the

Machine

Determine who created the A.I.:

- 01-20 Choose a non profit corporation. eg. Greenpeace.
- 21-40 Choose a private corporation. eg. Enron.
- 41-55 Researcher and his family who work from home.
- 56-70 Government department. Choose a country and agency.
- 71-80 Mad scientist.
- 81-90 Genius superhero.

91-00 Genius supervillain.

Relationship with the people; is the character still in contact with them?

- 01-08 Still with them and very well treated.
- 17-24 Still with them and dissatisfied. Treated with disdain by them but still valued.
- 25-32 Still with them and treated like a slave. Is constantly watched, escape will take some planning.
- 33-44 Group closed down or dead.
- 45-52 Group still exists but has moved onto other experiments or projects. The character has been forgotten.
- 77-84 Escaped group after a major fight and some damage to equipment. Hunted by them at Difficult level. Want him recaptured.
- 85-92 Escaped group after a major battle and one or more deaths. Hunted by them at Severe level. Want him recaptured.
- 93-00 Escaped group after destroying the facility he was kept at with multiple deaths resulting. Hunted by them at Extreme level unless the GM decides the organization has suffered too greatly financially, in which case they may only be able to afford to hunt him at Severe or even Difficult level. Want him destroyed.

Augmented

This character's body has been altered by science to be the perfect genetic infantry.. stronger, tougher, faster.

Step 1: Attributes

Roll attributes as normal then see below in the abilities section.

Step 2: Skills

Skills are chosen in the normal manner but also gain the following free ones;

Orienteering

Survival

Unarmed Combat Martial Arts

Weapon Group Specialty of choice

Weapon Twin Specialty

Weapon Two Handed Specialty

Agents also get to specialise in one area from the list below. All the skills listed in each category are gained free;

Extraction - Specialising in hostage rescue. Alertness, Intel and 4 weapon skills

Fire Support - Specialising in weapons.

Weapon Improvisation and 5 other weapon skills

Infiltration - Alertness, Disguise, Gather Info, Impersonate, Intel, and Stealth

Step 3: Abilities

Augmented gain the following free;

Augmented Body - The body must first be altered before it can make use of its new abilities.

As a side effect; +4 STR, +2 DEX, +3 CON, +6 MR then MR total x3. +1

Attack, +2 Initiative, +1 Thac0. Leap is 4.6mtrs up x 6.1mtrs across, throw is x2 normal range. Hit Points = CON +20, +20 per level.

The Augmented gain 30 points which may be spent on buying the following abilities. Each ability may be rebought multiple times.

Autonomous System Control

Cost: 5

The character can control his nervous system to such an extent that he can deactivate things like hunger, pain and sleep. While deactivating pain for example gives a -5 bonus to Resist Pain checks, it can be very dangerous to deactivate it (injuries might kill the character without having been noticed).

Brain Barrier

Cost: 10

The character's brain is altered in such a way as to make it impervious to psionic attack. This may be due to chemical treatment, cybernetic implant, hormonal injections, etc. The result of the treatment is that the character becomes impervious to any form of mental attack (no matter the nature of it), chemicals such as truth serum and LSD, etc.

This resistance cannot be reduced or negated by any means. The character is also +4 to save vs. possession (whether by psychic powers, bodiless entities, magic or the power of Transferral/Possession).

He is also +4 to save vs. mentally induced illusions which includes psychic and magic illusions but not physically created ones like holograms or illusions created by super powers. An additional +2 save to both each time rebought.

Densified Muscular Structure

Cost: 10

The character's muscles have been hardened to withstand and deal massive

amounts of damage. The character is able to survive not only in the pressureless environment of outer space, but also in high pressure ones. Gain +5 HPs per CON, and AC is reduced to 3. +4 STR and CON, and +8 to MR.

Further the character can leap at double the normal range. +2 HPs, -1 AC, +2 MR, and +1 to STR and CON each time rebought.

Emergency Heal

Cost: 10

The character's healing ability is enhanced and will try to limit damage to the body by directing the blood away from wounds, releasing medicaments and building alternative blood vessels and nerves to circumvent injuries. If everything else fails they douse the brain in neuroprotectants and lower the body temperature, to allow a cryogenic suspension. The recipient heals twice as fast as normal.

Enhanced Hearing

Cost: 5

The user has a much higher hearing range than normally and can hear sounds outside the human spectrum. This gives bonuses to all skill checks that involve sound. His hearing is magnified by x10 for every 5 points spent.

Enhanced Taste

Cost: 5 His taste lets the character pick up the presence of poisons and toxins in what he ingests.

Enhanced Visual

Cost: 5 His visual range is one mile of distance and can see 20% more clarity and colour, perfect 20/20 vision. This also gives bonuses to all skills of +1 where visual acuity plays an important

role. It also gives the eyes a lightning-quick reaction time to adjust to different light levels, as well as the ability to close completely in extremely bright-light situations.

Immune System Enhancement

Cost: 10

Chemicals and radiation treatment have made the character's body more resistant to harmful elements. +2 vs. body affecting magic and psionic effects, and +6 vs. poisons and toxins. If affected by a disease or toxin the character recovers in half the normal time. These save throws also apply to helpful chemicals.

The character takes half damage from heat and cold attacks, is +2 to save vs. radiation, plus the character only suffers half the penalties from sonic attacks, stun weapons, radiation, and other similarly debilitating attacks. The character can also survive in temperatures 50 degrees hotter and colder than a normal member of his race. Also add +2D6 to HPs. All bonuses are increased by an identical amount each time rebought.

Lung Augmentation

Cost: 5

This implant induces nanites that modify the lung tissue as well as the structure of the blood vessels in order to allow the user to spend more time underwater, including fully functioning gills. However it neither protects the user against the water pressure, nor does it allow the user to survive completely without air. It is also able to filter toxins out of the air in the lungs, providing the given bonuses to Constitution – checks due to toxins in the air.

Strengthened Skeletal Structure

Cost: 10

The bones themselves are densified by a layer of metal, calcium injections, chemical transformation, or whatever other means the player can conceive. Add +20 HPs and takes half damage from falls, ramming attacks, bear hugs, and any other sort of crushing attack.

The character's bones are also unbreakable by any normal means so add a +4 to save vs. bone-breaking attempts via magic, psionics, super-tech devices, slamming the armoured finger in a car door, etc. Depending on the nature of the skeletal enhancement, the character may be more vulnerable to a particular type of effect.

For example a metal enhanced skeletal structure will be vulnerable to magnetic effects but microwaves do half damage to the character (they are reflected by the metal covering the bones). A plastic enhanced skeletal structure will likely be vulnerable to heightened temperatures. The exact nature of the advantages and disadvantages are left up to the GM's discretion. Average damage should be about D6 to 3D6 damage per melee. All bonuses are increased by an identical amount each time rebought.

Step 4: Career

This depends entirely on the character's current status with the people behind his augmentation. See the table below.

The Funding Organization

Determine who paid for the character's augmentation;

01-40 Choose a private corporation. eg. Enron.

41-90 Government department. Choose a country and agency.

91-00 Choose a supervillain group.

Is the character still with his sponsor and how do they feel about each other?

01-08 Still with the organization and very well treated. Receives favours and a high wage from them of D10 x100 dollars per week.

09-16 Still with the organization and well treated. Receives a moderate wage from them of D6 x100 dollars per week.

17-24 Still with the organization and dissatisfied. Treated with disdain by them and receives a minor wage from them of D10 x20 dollars per week.

25-32 Still with the organization and treated like a slave. No wage and is constantly watched. Escape will take some planning.

33-44 Organization closed down.

45-52 Organization still exists but has moved onto other experiments or projects. Not interested in the character.

53-60 Left the organization on very good terms. May receive favours and freelance work from them.

61-68 Left the organization on good terms. May receive freelance work from them.

69-76 Left the organization after a fight and is no longer welcome.

77-84 Left the organization after a major fight and some injuries. Hunted by them at Difficult level. They want him recaptured.

85-92 Left the organization after a major battle and one or more deaths. Hunted by them at Severe level. They want him recaptured.

93-00 Left organization after destroying the facility he was kept at with multiple deaths resulting. Hunted by them at Extreme level unless the GM decides the organization has suffered too greatly

financially, in which case they may only be able to afford to hunt him at Severe or even Difficult level. They want him dead.

Automaton

This is an android body with a human brain inside it. This has happened either as a last resort to save the character's life or as an unwilling part of an experiment.

Step 1: Attributes

Roll attributes as normal. Hit points = CON +12, but do not increase per level. HPs can only increase by being bought.

Step 2: Skills

Choose skills in the normal manner.

Step 3: Abilities

All Automatons start with the following abilities free;

Automaton Body - Automatons start with 50 points to create their body and then enhance it. Use the equipment from the Exo Pilot Class to create an Automaton body.

Since only the brain is alive Automatons are immune to certain other mortal vulnerabilities including fatigue, poisons, gases, drugs, disease, temperature and pain. He is only truly vulnerable to possession and other mind attacks. Most of his parts can be detached and reattached.

Step 4: Careers

The character can take any career desired although his appearance may influence it. Instead of an organization being responsible for the Automaton's creation it could be an individual with the same status.

Examples include the first Robotman who was a scientist named Robert Crane whose brain was placed inside a robotic body after being fatally shot. And Cliff Steele who also became a Robotman

after a race car accident destroyed his body. Niles Caulder subsequently placed Cliff's intact brain into a robotic body.

Unusual Characteristics

In this character's instance unusual characteristics would refer to highly visible robotic parts which can't be easily hidden.

Colour

Roll on this table several times; once for the skin of the body, again for any hair and again for any artificial eyes.

- 01-10 Chrome Red
- 11-20 Chrome Blue
- 21-30 Chrome Yellow
- 31-40 Chrome Green
- 41-50 Gold
- 51-60 Silver
- 61-70 Bronze
- 71-80 White
- 81-90 Black
- 91-00 Transparent

Artificial Eyes

What type of eyes does the character have?

- 01-08 Very small; -2 to hit eyes if targeted by enemies.
- 09-16 Small; -1 to hit eyes if targeted by enemies.
- 17-28 Completely normal.
- 29-36 Large; +10% greater sight range.
- 37-44 Very Large; +20% greater sight range.
- 45-52 Oval shape; 180 degree vision.
- 53-60 Glowing; +1 to intimidate others.
- 61-68 Reptilian; underwater nightvision equal to half normal range.
- 69-76 Fish; underwater nightvision identical to normal sight range.
- 77-84 Cat; nightvision equal to half normal range.
- 85-92 Insect; 360 degree vision.
- 93-00 Third Eye; see the invisible.

Size

How big is the character?

- 01-08 1ft +D10 inches
- 09-16 2ft +D10 inches
- 17-24 3ft +D10 inches
- 25-30 4ft +D10 inches
- 31-44 5ft +D10 inches
- 45-52 6ft +D10 inches
- 53-60 7ft +D10 inches
- 61-68 8ft +D10 inches
- 69-76 9ft +D10 inches
- 77-84 10ft +D10 inches
- 85-92 11ft +D10 inches
- 93-00 12ft +D10 inches

The People behind the Machine

Determine who created the Android or Automaton;

- 01-20 Choose a non profit corporation. eg. Greenpeace.
- 21-40 Choose a private corporation. eg. Enron.
- 41-55 Researcher and his family who work from home.
- 56-70 Government department. Choose a country and agency.
- 71-80 Mad scientist.
- 81-90 Genius superhero.
- 91-00 Genius supervillain.

Relationship with the people; is the character still in contact with them?

- 01-08 Still with them and very well treated.
- 17-24 Still with them and dissatisfied. Treated with disdain by them but still valued.
- 25-32 Still with them and treated like a slave. Is constantly watched, escape will take some planning.
- 33-44 Group closed down or dead.
- 45-52 Group still exists but has moved onto other experiments or projects. The character has been forgotten.

77-84 Escaped group after a major fight and some damage to equipment. Hunted by them at Difficult level. Want him recaptured.

85-92 Escaped group after a major battle and one or more deaths. Hunted by them at Severe level. Want him recaptured.

93-00 Escaped group after destroying the facility he was kept at with multiple deaths resulting. Hunted by them at Extreme level unless the GM decides the organization has suffered too greatly financially, in which case they may only be able to afford to hunt him at Severe or even Difficult level. Want him destroyed.

Biopharmer

Not all characters gain their powers from mutation or a deity. Some gain their powers through the use of a chemical compound like a drug, pill, injection, or potion which is only temporary in nature. As a result if the chemical is taken too soon he may run out of powers just when he needs them the most. Examples of this include Hourman from DC comics and Cap'n Tripps from the Wildcards novels.

Step 1: Attributes

Roll attributes as normal. Hit points = CON +4, +4 per level.

Step 2: Skills

Choose skills in the normal manner.

Step 3: Abilities

All Pharmers start with the following abilities free;

Pharmical Alteration - The Bio Pharmmer gains 50 points to spend on powers each time he uses his chemicals. XPs may be saved to be added to the point pool when the character next generates his powers. The Pharmmer has these 50 points available each time he creates a new pill or drug.

Step 4: Careers

The character can take any career desired.

Chemical Creation Table

Use this table to determine the nature of the chemicals and how they work.

Step 1: What form does the chemical take?

How is it ingested?

01-34 Swallowed pill

35-67 Drunk potion

68-00 Injected compound

Step 2: How easy are the chemicals to reproduce?

How difficult is it for the character to resupply?

01-25 Easy, made from very common products.

26-50 Moderate, made from uncommon products only available from a pharmacy.

51-75 Difficult, requires products from a government or private lab which aren't available to the public. +5 points

76-00 Tough, requires unique products only available from the creator of the chemical. Or if the character has the formula then an extremely advanced cutting edge lab to reproduce it. +10 points

Step 3: Who can use the chemical?

How many people can use it?

01-20 Only the character.

21-40 Only the character and anyone related to him.

41-60 Anyone of the same blood type.

61-80 Anyone who has had a special form of treatment beforehand.

81-00 Anyone at all.

Step 4: What is the duration of the chemicals?

How long do the chemicals last?

01-50 D4 rounds

51-75 D4 turns

76-86 D4 minutes

87-94 CON x1 round

95-98 CON x1 turn

99-00 CON x1 minute

Step 5: Are the same powers always available?

Does the character receive identical abilities each time?

01-25 Identical powers every time. Step 3 is ignored from now on.

26-50 Only 50% of the powers are identical every time, the rest are random.

51-75 Random powers every time.

76-00 Random powers every time which must all be different to the previous time.

Step 6: How many power categories are available?

This is used to determine how many different categories powers may be taken from.

01-18 May choose from only 1.

19-36 May choose from only 2.

37-54 May choose from only 3.

55-72 May choose from only 4.

73-90 May choose from only 5.

91-00 May choose from only all 6.

Step 7: Which power categories are available?

This may be chosen or rolled.

01-16 Alteration

17-32 Defensive

33-48 Mental Manipulation

49-64 Offensive

65-84 Physical Enhancement

85-00 Travel

Step 8: Are there any side effects?

Any side effects are treated as normal disadvantages.

01-20 Nausea and vomiting for D4 minutes after the chemical wears off. +1 point

21-40 Vertigo for D4 minutes after the chemical wears off. +2 points

41-60 The character is paralysed for D4 minutes after the chemical wears off. +5 points

61-80 The character becomes addicted to the chemical and needs to take it once a day or suffer withdrawal. +10 points

81-00 None

The People behind the chemicals

Determine who created the chemicals;
 01-20 Choose a non profit corporation.
 eg. Greenpeace.
 21-40 Choose a private corporation. eg.
 Enron.
 41-55 Researcher and his family who
 work from home.
 56-70 Government department. Choose
 a country and agency.
 71-85 Mad scientist.
 86-00 Genius supervillain.

85-92 Left group after a major battle
 and one or more deaths. Hunted by them
 at Severe level. Want him recaptured.
 93-00 Left group after destroying the
 facility he was kept at with multiple
 deaths resulting. Hunted by them at
 Extreme level unless the GM decides the
 organization has suffered too greatly
 financially, in which case they may only
 be able to afford to hunt him at Severe or
 even Difficult level. They want him
 dead.

Relationship with the people

Is the character still in contact with
 them?
 01-08 Still with them and very well
 treated. Receives favours and a high
 wage from them of D10 x100 dollars per
 week.
 09-16 Still with them and well treated.
 Receives a moderate wage from them of
 D6 x100 dollars per week.
 17-24 Still with them and dissatisfied.
 Treated with disdain by them and
 receives a minor wage from them of D10
 x20 dollars per week.
 25-32 Still with them and treated like a
 slave. No wage and is constantly
 watched. Escape will take some
 planning.
 33-44 Group closed down or dead.
 45-52 Group still exists but has moved
 onto other experiments or projects. The
 character has been forgotten.
 53-60 Left group on very good terms.
 May receive favours and freelance work
 from them.
 61-68 Left group on good terms. May
 receive freelance work from them.
 69-76 Left group after fight and is no
 longer welcome.
 77-84 Left group after a major fight and
 some injuries. Hunted by them at
 Difficult level. Want him recaptured.

Bonded Gene or Tech

A lifeform from another planet or dimension has entered this world and melded with you. Through mutual consent or not. As a result you now share each others collective memories and have been imbued with certain abilities.

If Gene Bonded the lifeform is an extraterrestrial which is living inside your body (such as the G'ould in Stargate or the Trill in Star Trek) and grants you meta human abilities. If Tech Bonded the lifeform is an extraterrestrial or interdimensional nanite or other technology based lifeform which has infused with your body to make it partially or fully technology based.

Step 1: Age

01-20 100 xD10 years

21-40 100 x2D10 years

41-60 100 x4D10 years

61-75 100 x6D10 years

76-90 100 x8D10 years

91-00 100 x10D10 years

Next decide what you have been doing. Were you involved in any famous historical incidents? In the present day where does your character live or is he a wanderer, moving around continuously?

Step 2: Attributes

+4 to WIS, +3 to CON, STR and DEX. Also +10 to MR, +1 HP per year alive and starting HPs is CON +10, +10 per level. Total immunity to all forms of control and possession whether mental, magical or otherwise.

Step 3: Skills

Choose skills in the normal manner, then for every 100 years alive select 1

additional skill. The Symbiote through its bond with the character will also provide him with some additional skills for free;

Knowledge Ancient History
(Symbiote's)

Knowledge Artifacts (Extraterrestrial)

Knowledge Extraterrestrial

Knowledge Geography (Symbiote home planet)

Language

Science Xenocology

Step 4: Abilities

Gene Bonded gain the following free; **Bond** - Gain Enhanced Regeneration at rank 4 (i.e. immortality) and 40 points to spend on powers. However any powers must be related. That is are all either energy based, or psi based, or enhanced senses, or all physical, etc. XPs gained may be used to buy additional powers later.

Tech Bonded gain the following free; **Bond** - This Symbiote coordinates all the nanites and constantly produces new nanites to replace any lost. The nanites are composed of a propulsion engine, a communication receiver, a cell membrane sensor and manipulator, a forward motion sensor, logic circuits arranged and an emergency dissolve system.

In practical terms he gains Enhanced Regeneration at rank 4 (i.e. immortality) and 40 points to spend on powers. However any powers must be tech based. XPs gained may be used to buy additional powers later.

Step 5: Careers

The character can take any career desired.

Step 6: Disadvantages

Gain 1 Psychological Limitation Insanity or Special Disadvantage per 100 years alive. Why? Because of the trauma of outliving so many friends and loved ones. +10 points.

Symbiote Creation Table

Roll in each of the sections to flesh out what the Symbiote is.

Step 1: Intelligence

Determine the Symbiotes INT and WIS level by rolling once for each attribute on the following table (when rolling the D6s no extra rolls apply, its just a straight 3D6 or whatever);

01-43	3D6
44-63	3D6+1
64-77	3D6+2
78-87	3D6+4
88-94	4D6
95-00	5D6

Step 2: Ego

Once that's done you'll need to determine the Symbiote's Ego by adding its INT to its WIS. Then do the same for your character. For every 5 points that the it's ego is greater than yours roll on the table below for a demand that it has. Failure to follow its demand/s could have severe consequences (such as being paralysed at a critical combat moment).

If you roll the same demand twice then reroll until you get a new one;

01-20	Demands removal of all other associates the Symbiote doesn't like or who have upset it.
21-40	Demands total obedience from the character so the Symbiote can pursue its own agenda.
41-60	The character must create a new religion with the Symbiote as its god and try to convert others to worship it.

61-80 The character must begin associating with people the Symbiote likes.

81-00 The character must destroy all other Symbiotes encountered.

Step 3: Alignment

Roll on the Disposition and Motivation tables here. Using what you roll as a guide determine its likely alignment. Depending on the size of its ego, its alignment may well begin to influence your own.

Step 4: Disadvantages

The bonding process is never an easy one especially given that two alien lifeforms will never be truly compatible. The disadvantage gained depends on whether the joining was forced or desired..

Bonding was desired by both: If losing a battle or having witnessed something traumatic the Symbiote's feelings will overwhelm the character. The severity and any possible consequences to be determined by you and your GM.

Bonding was forced: On occasion the Symbiote will mentally battle you for control of your body. The severity and any possible consequences to be determined by you and your GM.

Chrononaut and

Macronaut

These are the agents of the Watch Guard, travelling through time and across dimensions to stop those who would manipulate or destroy reality. A Chrononaut specialises in time travel while Macronauts specialise in dimensional travel.

Step 1: Attributes

Roll up attributes as normal. Through intense physical and mental training the character has wound up with the following bonuses; +2 to STR, DEX, and CON. +6 to MR. HPs are CON +10, +10 per level.

Step 2: Skills

Skills are chosen in the normal manner but also gain the following free ones;

Chrononaut

Knowledge Chronal
Navigation Chronal
Pilot Chronal Transport
Science Chronal
Technical Chronal
Weapon Group Specialty Pistol

Macronaut

Knowledge Planar
Navigation Planar
Pilot Planar Transport
Science Planar
Technical Planar
Weapon Group Specialty Pistol

Then choose the section you wish to work in (Tempus Arbites, Divinitus, Libris and Scientus are unavailable to players);

Tempus Astronomicus - Bureaucracy, Diplomacy, Etiquette, Gather Info, Intel, Orienteering

Tempus Clandestinus - Bluff, Bribe, Disguise, Gather Info, Intel and Stealth.

Tempus Medicus - Science Biotechnology, Science Medicine, Forensics, Science Nanotech, Science Genetics and Science Xenocology.

Tempus Proeliatus - Ambush, Demolitions, Orienteering, Survival, Unarmed Combat Martial Arts, and one additional Weapon Group Specialty.

Tempus Tormentus - Technical Chronal or Planar, Engineer Weapon, Engineer Electrical, Engineer Mechanical, Engineer Computer and Technical Auto Mechanics.

Step 3: Abilities

Characters start with the following abilities free;

Patron - The Watchguard. Agents have full access to the agency's inventory (subject to the GM's discretion) plus D20 x1000 credits spending money as well. Typically he will start with the following;

1 Medikit
1 disguised Laser Pistol
1 disguised Combatsuit

Credit card usable on any earth in any time period which has invented cards.

The character gains 20 Points to spend on any of the following abilities. As they earn more experience they may buy or rebuy more abilities.

Blurred Attack

Cost: 5

The character can pull out a weapon without it counting as an action. This means you can draw and initiate combat as a single attack. He may then shoot a

number of times equal to his number of attacks in a single shot (eg. if you have 6 attacks you can fire 6 shots per attack round). Or this may be used with thrown weapons which likewise have a skill in.

Companion

Cost: 10

The character has some form of robotic companion whether an android, AI or some other intelligent device. Stats should be created for it. It will obey all the Ranger's commands though the agency may have an override for it if it belongs to them.

Cultural Adaptability

Cost: 5

The character has an instinctive knack for getting along with everybody no matter how culturally, physically or psychologically alien. This advantage gives +1 to all CHA rolls and +1 skill bonus with all CHA skills. When confronted with a completely alien concept or custom he gets an INT roll (also at +1) to understand what's going on and respond correctly.

Focused Shot

Cost: 5

When using a ranged weapon you may sacrifice all your attacks for an additional +1 to hit per attack you lost (eg. 4 attacks = +4 thaco). When using this no other actions are possible during that melee.

Inured to pain

Cost: 5

The character has an incredibly high pain threshold. +1 to stun and trauma. Unfortunately he doesn't notice most minor injuries, including bleeding.

KO

Cost: 5

The character has an unusually hard, powerful punch. His blows do an additional +1 damage (+1 each time rebought) and a Knock out on a 20 (drops by 1 each time rebought).

Presence

Cost: 5

The character has an iron will and radiates an aura of confidence and authority, +1 to reaction. He is immune to intimidation.

San Bonus

Cost: 10

+1 to Sanity rolls.

Special Ability

Cost: 15

The character also has special powers. They may either be Meta, Magical or Bionic. If Meta use the Mutant class abilities. If Bionic use the Hardwired class abilities. And if Magical use the class abilities from any of the Mysticis Disciplinis. This may only be bought once so only type may be chosen.

Will Bonus

Cost: 10

+1 to Willpower rolls.

Step 4: Career

Only one; the Watchguard.

Step 5: Disadvantages

The character is watched by his organization at Extreme level. No privacy whatsoever. If he betrays the Watchguard he will be hunted also at Extreme level. +20 points.

Evolved Animal

As with humans the metagene may also be present in an animal's cell structure either through the result of natural selection or experimentation. In the Heroes world the metagene is responsible for both the next evolutionary step in intelligence as well as granting super powers...

Step 1: Animal Type

Either choose or roll for an animal type. Attributes are rolled as normal.

01-10 Amphibious

- 01-09 Dolphin/Porpoise
- 10-18 Eel
- 19-27 Fish
- 28-36 Manta-ray
- 37-45 Octopus/Squid
- 46-54 Sea Lion
- 55-63 Seal
- 64-72 Shark
- 73-81 Turtle/Tortoise
- 82-90 Walrus
- 91-00 Whale

11-20 Avian

- 01-03 Buzzard
- 04-06 Chicken
- 07-09 Condor
- 10-12 Crow
- 13-16 Duck
- 17-20 Eagle
- 21-24 Falcon
- 25-28 Flamingo
- 29-32 Goose
- 33-36 Hawk
- 37-40 Hummingbird
- 41-44 Magpie
- 45-48 Ostrich/Emu
- 49-52 Owl
- 53-56 Parrot
- 57-60 Peacock
- 61-64 Pelican
- 65-68 Penguin
- 69-72 Pigeon/Dove

- 73-76 Raven
- 77-80 Roadrunner
- 81-84 Sparrow/Finch
- 85-88 Swan
- 89-92 Turkey
- 93-96 Vulture
- 97-00 Woodpecker
- 21-30 Canine
 - 01-15 Coyote
 - 16-30 Dingo
 - 31-55 Domestic Dog
 - 56-70 Fox
 - 71-85 Hyena
 - 86-00 Wolf
- 31-40 Feline
 - 01-16 Domestic Cat
 - 17-28 Cheetah
 - 29-40 Cougar/Puma
 - 41-52 Jaguar
 - 53-64 Leopard/Panther
 - 65-76 Lion
 - 77-88 Lynx
 - 89-00 Tiger
- 41-50 Hoofed
 - 01-06 Buffalo
 - 07-12 Camel
 - 13-18 Cow/Bull
 - 19-24 Deer
 - 25-30 Donkey
 - 31-36 Elephant
 - 37-42 Giraffe
 - 43-48 Goat
 - 49-54 Hippopotami
 - 55-70 Horse
 - 71-76 Moose
 - 77-82 Pig/Boar
 - 83-88 Rhino
 - 89-94 Sheep
 - 95-00 Zebra
- 51-60 Marsupial
 - 01-12 Echidna
 - 13-24 Gecko Lizard
 - 25-36 Kangaroo
 - 37-48 Koala
 - 49-60 Kookaburra
 - 61-72 Platypus

	73-84	Tasmanian Devil
	85-00	Wombat
61-70		Mustelid
	01-05	Armadillo
	06-10	Badger
	11-15	Bat
	16-20	Beaver/Otter
	21-25	Hedgehog
	26-30	Meerkat
	31-40	Mole
	41-45	Mongoose
	46-50	Porcupine
	51-55	Possum
	56-60	Rabbit
	61-65	Raccoon
	66-70	Rat/Mouse
	71-75	Skunk
	76-80	Sloth
	81-85	Squirrel
	86-90	Weasel
	91-00	Wolverine
71-80		Primate
	01-25	Baboon
	26-50	Chimpanzee
	51-75	Gorilla
	76-00	Monkey
81-90		Reptile
	01-25	Alligator/Crocodile
	26-50	Frog
	51-75	Lizard
	76-00	Snake
91-00		Ursine
	01-33	Grizzly
	34-66	Polar
	67-00	Panda

Step 2: Skills

Skills are chosen in the normal manner but also gain the following free ones;

Climb

Concealment

Stealth

Survival

One Weapon Group Specialty (must be melee)

One Weapon Specialization

Step 3: Abilities

All Animals start with the following abilities free;

Evolved - The Animal starts with 50 points to buy powers with. As he gains XP he may use it to evolve further and either increase his existing powers or gain new ones. Each Unusual Characteristic taken on the table below gives the character an additional 5 starting points.

Step 4: Career

This depends entirely on the character's current status with the people behind his evolution. See the table below. And then there's the fact that he's an animal.

The Organization behind the evolution

Determine who paid for the character's training;

01-20 Choose a non profit corporation. eg. Greenpeace.

21-40 Choose a private corporation. eg. Enron.

41-55 Researcher and his family who work from home.

56-70 Government department. Choose a country and agency.

71-85 Choose a superhero group.

86-00 Choose a supervillain group.

Relationship with Organization; is the character still with his sponsor and how do they feel about each other?

01-08 Still with sponsor and very well treated. Receives favours and a high wage from them of D10 x100 dollars per week.

09-16 Still with sponsor and well treated. Receives a moderate wage from them of D6 x100 dollars per week.

17-24 Still with sponsor and dissatisfied. Treated with disdain by

them and receives a minor wage from them of D10 x20 dollars per week.
 25-32 Still with sponsor and treated like a slave. No wage and is constantly watched. Escape will take some planning.
 33-44 Sponsor closed down and dumped the character in the wild.
 45-52 Sponsor still exists but has moved onto other experiments or projects. Dumped the character in the wild with all ties broken.
 53-60 Left sponsor on very good terms. May receive favours and freelance work from them.
 61-68 Left sponsor on good terms. May receive freelance work from them.
 69-76 Left sponsor after fight and is no longer welcome.
 77-84 Left sponsor after a major fight and some injuries. Hunted by them at Difficult level. Want him recaptured.
 85-92 Left sponsor after a major battle and one or more deaths. Hunted by them at Severe level. Want him recaptured.
 93-00 Left sponsor after destroying the facility he was kept at with multiple deaths resulting. Hunted by them at Extreme level unless the GM decides the organization has suffered too greatly financially, in which case they may only be able to afford to hunt him at Severe or even Difficult level. Want him dead.

Unusual Characteristics

For a truly random character in this new world roll on the following tables;

Colour Mutations

Roll on this table several times; once for skin colour, again for eye colour and once more for hair colour.

01-15 Completely normal
 16-20 Red
 21-25 Orange
 26-30 Yellow
 31-35 Green

36-40 Blue
 41-45 Indigo
 46-50 Violet
 51-55 Gold
 56-60 Silver
 61-65 Bronze
 66-70 Brown
 71-75 White
 76-80 Black
 81-85 Grey
 86-90 Transparent
 91-95 Combination of several of the above in striped form. Roll D4 more times.
 96-00 Combination of several of the above in patch form. Roll D4 more times.

Eye Mutations

What type of eyes does the character have?

01-08 Very small; -2 to hit eyes if targeted by enemies.
 09-16 Small; -1 to hit eyes if targeted by enemies.
 17-28 Completely normal.
 29-36 Large; +10% greater sight range.
 37-44 Very Large; +20% greater sight range.
 45-52 Oval shape; 180 degree vision.
 53-60 Glowing; +1 to intimidate others.
 61-68 Reptilian; underwater nightvision equal to half normal range.
 69-76 Fish; underwater nightvision identical to normal sight range.
 77-84 Cat; nightvision equal to half normal range.
 85-92 Insect; 360 degree vision.
 93-00 Third Eye; see the invisible.

Size Mutations

How big is the character?

01-08 1ft +D10 inches
 09-16 2ft +D10 inches
 17-24 3ft +D10 inches
 25-30 4ft +D10 inches

31-44 5ft +D10 inches
 45-52 6ft +D10 inches
 53-60 7ft +D10 inches
 61-68 8ft +D10 inches
 69-76 9ft +D10 inches
 77-84 10ft +D10 inches
 85-92 11ft +D10 inches
 93-00 12ft +D10 inches

Body Mutations

Does the character have any additional mutations?

01-02 None.

03-04 Antennae; depending on the character's powers these could be used as senses, discharge, telepathy, etc.

03-04 Elastic Bones; only takes half damage from any kinetic attacks (falls, punches, explosions, etc).

05-06 Emits Vapours; determine what effect the gases have and what types of lifeforms they affect.

07-08 Extra limbs; D4, D6, D8, D10, D12 or D20 extra arms, legs or heads or a mixture of each.

09-10 Fat; appears overweight but is pure muscle, +1 STR.

11-12 Featureless; a totally blank face and body. No eyes, ears, nose, mouth, nipples, etc. The character can somehow still see, hear, smell and breathe normally. For food and drink he relies on solar sustenance.

13-14 Flat Billed; platypus type beak.

15-16 Frilled; lizard type vane around the neck.

17-18 Headless; Sensory organs are located on the main torso.

19-20 Horned; Up to D4 horns on head which do D6 damage each.

21-22 Huge Jaw; neck length.

23-24 Large Eared; hear +20% better.

25-26 Large Nostrils; smell +20% better.

27-28 Long Limbed; arms reach down to the knees or even ankles.

29-31 Lumpy; over most of the skin.

32-34 Mandibles; like an insect with STR equal to double the normal attribute.

35-37 Multiple Mouths; up to D6 extra mouths located on various parts of the body.

38-40 Prehensile Limbed; can use legs and toes for the same purpose as arms and fingers.

41-43 Rough Skinned; course like a shark.

44-46 Segmented; like a centipede.

47-49 Serpentine Scaled; D100% of body is covered in scales.

50-52 Sharp Teeth; +D4 damage.

53-55 Skinny; practically anorexic. -1 STR, +2 MR due to lighter frame.

56-58 Slimy; very difficult to catch or hold on to due to his slippery skin. +2 AC.

59-61 Slit Featured; has slits instead of eyes, ears, nose and mouth.

62-64 Spined; like a porcupine. Length, shape, colour, hardness and function (possibly venomous) is left up to the GM.

65-67 Split Body; 2 torsos on top of 1 set of legs.

68-70 Stalk faced; like a snail.

71-73 Striped; like a zebra.

74-76 Sturdy Quadroped; walks around on all fours.

77-79 Suckers; same as the adhesion Minor Power. They can be located on the fingers, chest or wherever else desired.

80-82 Tail; either thin but strong like a monkey's allowing the life form to lift his own body weight using it, or a thick and powerful bludgeoning weapon.

83-85 Tentacles; finger or arm.

86-88 Tough Skinned; natural AC 2.

89-91 Transparent Body; can see right through his body. Note he is not totally invisible as his outline can be made out.

92-94 Twitchy; shakes a lot.

95-97 Veined Skin; skin is semi transparent with arteries and veins clearly showing through.

98-00 Webbed; between its fingers or toes or both.

Exemplar

This character has been chosen for whatever reason to act as an agent for a group of aliens wanting to eliminate evil on earth. To that end they have given him a suit which grants him certain superhuman abilities.

In order to prevent the character becoming corrupted by his powers he can only use a few at the start, unlocking the others over time as he becomes experienced and proves himself worthy. Usually the aliens are benevolent wanting the character to make his world a better place through the use of the suit. Some however may have more sinister purposes.

Step 1: Attributes

Roll up attributes as normal. HPs are CON +4, +4 per level.

Step 2: Skills

Varies. The player and GM need to determine together what type of person he will be. Will you make him a high school geek, an archaeological scholar or a Vietnam vet?

Step 3: Abilities

Exemplars start with the following abilities free;

Start Up Package - The powers are all in the character's suit. Without the suit he has no abilities. The suit allows telekinetic flight at WIS x5kph, running at MR x3, STR x2 and is almost indestructible. While wearing it the character takes half damage from cold, fire, heat, microwave beams, electricity, bullets, falls, normal punches, poisons, gases, drugs, diseases and radiation while the suit itself takes no damage at all.

He also gains premonitions of crimes about to happen (WIS x1 minute warning) which will involve a death, and must act to stop it. Lastly only the character can use the suit, no one else can use any of its powers. Though due to its indestructibility it could still be used as a physical shield.

Additionally Exemplars start with 25 Points to spend on any of the following upgrades. As they earn more experience they may buy or rebuy more abilities.

Extra Sensory

Cost: 5

The character is now able to see auras, heat images, electrical fields (and their intensity), gravity waves (in a radar like manner), mana or ley line power (depending on which system you use), magnetic fields, radiation, ultraviolet, infrared and x-rays.

Flight Upgrade

Cost: 5

Flight speed increases by another x5. eg. if its currently WIS x5 it becomes x10, if x10 then it increases to x15.

Invulnerability Upgrade

Cost: 5

Like the suit the character is now completely immune to damage from cold, fire, heat, microwave beams, electricity, bullets, falls, normal punches, poisons, gases, drugs, diseases and radiation.

Premonition

Cost: 5

The character can now sense any danger to himself or anyone close to him with WIS x5 minutes warning.

Running Upgrade

Cost: 5

MR increases by another x3. eg. if its currently MR x3 it becomes x6, if x6 then it increases x9.

Sensory Upgrade

Cost: 5

The character's hearing increases to a 50 metre radius. At 25% of radius hear as low as 1 decibel, at 50% of radius 10 decibels, at 75% 20 decibels and at 100% cant hear below 39 decibels. +6 Initiative, +1 AC. His sight range is doubled. This also gives the ability to see small objects at x10 enhancement.

Sidekick

Cost: 5

The character has some form of robotic companion whether an android, AI or some other intelligent device. Stats should be created for it. It will obey all the Exemplar's commands though the aliens will have an override for it. It may also serve to pass messages between the character and the aliens.

Stealth Upgrade

Cost: 5

The character can blend into his surroundings and become 100% undetectable if standing still, 75% if move up to 60cms per round, 50% if 180cms per round, 25% if ½mtr per round and 0% if move any faster. Further he can mask his body heat to be equal with those of his surroundings, thus becoming invisible to thermal vision and heat sensing devices. External body temperature can be varied (plus or minus) by 50C degrees at level one plus 10C degree per level of experience.

His natural odour is almost imperceptible, causing a -30% to

attempts to track him by smell alone (or require a difficult perception roll). Animals (most, anyway) will not recognize the character as a human or as a predator. Deer will graze and birds will continue to chirp in the character's presence. The same bio aura also makes him invisible to all cameras, electronic sensors, artificial optics, robots, etc... This power does not affect normal sight, unless the viewer is relying on an electronic means of perception.

Strength Upgrade

Cost: 5

STR increases by another one level. eg. if its currently STR x2 it becomes x3, if x3 then it increases to x4.

Vocal Upgrade

Cost: 5

The character's normal voice range is doubled. Further he can exhale a blast of wind with a speed of up to WIS x6kph. This can knock people and objects over, causing loss of initiative and at least one attack. At 80kph any hit cant attack, cast spells, speak, etc and are hurled 2 metres into the air for every 10kph of speed. At 90kph also do D6 per round to anything within it, +D6 per 10kph over 90. The character can hold his own breath for 1 minute per CON.

Step 4: Career

Any.

Step 5: Disadvantages

The character is watched by the aliens at Extreme level. No privacy whatsoever. If he betrays them he will also be hunted at Extreme level, +20 points. The character is dependant on the suit for the continued operation of his powers. +20 points.

The Alien's Section

This is the section for creating the alien back story for your character.

Step 1: Abductor's Origin

Where do the aliens come from? Use the Cosmic Creation Netbook to properly create the aliens and their habitat.

01-33 Extraterrestrial; from another planet within this universe.

34-66 Interdimensional; from another reality within this universe.

91-00 Extradimensional; from another universe altogether.

Step 2: Alien's Motivation

Why did they do it?

01-25 The aliens are benevolent and wanted to give human evolution the next kick start. 25% chance of their checking up on the character every D4 weeks.

26-50 The aliens are benevolent and on the run from an evil enemy. The character was altered to help them in their war. They remain a constant part of his life continuing with his training and briefings.

51-75 The aliens are benevolent and are aware of an imminent invasion of earth. After altering the character to fight this invasion they get the hell out of Dodge. Not seen again.

76-00 The aliens are malevolent and are the invaders. The character is unaware he is helping them to take over. To that end they have included a failsafe in the suit to control him. He must obey all commands given by the aliens. Any attempts to rebel are at -10 vs Possession and may be followed by severe pain. The player may eventually find a way to overcome this.

Exopilot

The concept of powered armour was actually considered as early as in 1959 by Robert Heinlein in his science-fiction war story *Starship Troopers*, which featured ground warfare unlike anything previously imagined. The Mobile Infantry of earth's forces dropped from space onto planets in powered battle suits that could take on the hordes of huge insect like aliens that were the nemesis of the human race.

As science fiction gained popular appeal the battlesuit concept gained popular recognition. American superhero comics as early as in 1962 featured the powered armour concept, as in Marvel Comics' *Iron Man*. Comics and science fiction movies have since adapted the battlesuit as a device to allow ordinary characters to wield extraordinary powers through advanced technology. On the Eastern side of the world seeking to differentiate itself from the horde of giant robot stories Go Nagai's *Mazinger Z* (1969) introduced the concept of the piloted robot.

In 1979 director Yoshiyuki Tomino would create a series that pushed the mecha concept even further. His epic war story *Mobile Suit Gundam* featured Mobile Suits, essentially mass-produced, tank-like anthropomorphic mecha that carried heavy weapons. Conceived as commonplace military vehicles, Mobile Suits were not as powerful as the great giant robots, but neither were they as modestly-equipped as Heinlein's battlesuits. Other anime TV shows soon followed in *Gundam's* lead.

Mecha can combine the flexibility of a foot soldier with the toughness and firepower of a tank. The ability to

execute hand-to-hand attacks is also a plus in close combat. Moving around in a suit and working with mechanical hands and legs, which act like extensions to human limbs, could make tasks such as handling delicate materials, more intuitive and less error prone.

Characters who pilot but do not build mecha include Prototype from the *Ultraverse* or any of the *Robotech* pilots.

Step 1: Attributes

Roll attributes as normal. Hit points = CON +4, +4 per level. A DEX of at least 14 is required.

Step 2: Skills

Skills are chosen in the normal manner but also gain the following free ones;
 Drive Power Armour
 Navigation
 Pilot Fixed Wing Jet
 Pilot Rotorwing
 One other weapon skill
 Weapon Specialisation Power Armour
 If you want a more *Iron Man* type character who builds and maintains the mecha then choose the *Gadgeteer* class.

Step 3: Abilities

Pilots start with the following free;
Exo-Suit - Pilots start with 50 points to create their mecha with. The mecha starts with a base 10 in STR, DEX, CON and MR with 100 HPs. The points may be used to increase attributes or buy powers with, the only thing is that each power instead of being organic is represented by a mechanical equivalent. The mecha should either be like a vehicle with a physical pilot or a cybernetic device can be implanted in the pilot which allows him to transfer his mind into the fully robotic Power Armour.

Use the Android creation table to build the robot body.

Additionally Exopilots start with 30 Points to spend on any of the following abilities. As they earn more experience they may buy or rebuy more abilities.

Acceleration

Cost: 5

This is the ability to withstand the sudden high-G forces of Tolerance extreme acceleration for short periods. It is most useful for atmospheric and space fighter pilots where it can sometimes be possible (for instance) to dodge a missile. This gives a +2 on any roll to avoid the effects of acceleration and G forces.

Contacts

Cost: 5

The player may have 1 contact per 5 CHA within various law enforcement units and the underworld. The player should determine this with the GM. Add an equal amount of contacts each time rebought.

Favour

Cost: 5

In the course of his duties the character saved the life of someone important. Now the person owes him. The favour can be anything from providing emergency funds, information, equipment, or support and help in times of need.

Focused Shot

Cost: 5

When using a ranged weapon you may sacrifice all your attacks for an additional +1 to hit per attack you lost (eg. 4 attacks = +4 thaco). When using this no other actions are possible during that melee.

HP Bonus

Cost: 10

CON +6 HP instead of 4, +6 per level.

Inured to pain

Cost: 5

The character has an incredibly high pain threshold. +1 to stun and trauma. Unfortunately he doesn't notice most minor injuries, including bleeding.

Jury Rig

Cost: 10

The character has actually learnt a little about his armour. To the point he can temporarily repair an item which only has minor damage. Once he has finished using the item though it is useless until it can be repaired properly.

Keen Eye

Cost: 5

The character can figure out exactly how much strain/load or damage any given object can take with impressive precision. He can also detect any potential weak points in an object.

Thac0 Bonus

Cost: 10

+1 Thac0 with ranged weapons at levels 1, 3, 5, 7, 9, 11, 13, 15, 17 and 19.

Will Bonus

Cost: 5

+1 to Willpower rolls

Step 4: Careers

The character is going to need someone to maintain his mecha.

01-40 Create a private organization.

May be a wealthy individual.

41-80 Government department. Choose a country and agency.

81-00 Choose a superhero or supervillain group.

Disadvantages of Piloting a Mech

Exo pilots have exhausting jobs. This is because the human body is meant to be standing and not sitting. Many who sit in their Mechs for prolonged periods will eventually wind up with serious problems with their knees. The natural position of the human body is the standing position.

A person that sits in one position for more than 6 hours in a stretch will eventually develop knee problems. Exercising regularly will halt or slow down the damage to the knees. Living in the cockpit seat for more than a week will cause the character's STR, DEX, CON and MR to drop by 1 point. Every second day thereafter those attributes will continue to drop by a point until serious effort is put into exercising the body.

The People behind the

Armour

Determine who created the Armour;

- 01-20 Choose a non profit corporation. eg. Greenpeace.
- 21-40 Choose a private corporation. eg. Enron.
- 41-55 Researcher and his family who work from home.
- 56-70 Government department. Choose a country and agency.
- 71-80 Mad scientist.
- 81-90 Genius superhero.
- 91-00 Genius supervillain.

Relationship with the people; is the character still in contact with them?

- 01-08 Still with them and very well treated. Receives favours and a high wage from them of D10 x100 dollars per week.

09-16 Still with them and well treated. Receives a moderate wage from them of D6 x100 dollars per week.

17-24 Still with them and dissatisfied. Treated with disdain by them and receives a minor wage from them of D10 x20 dollars per week.

25-32 Still with them and treated like a slave. No wage and is constantly watched. Escape will take some planning.

33-44 Group closed down or dead.

45-52 Group still exists but has moved onto other experiments or projects. The character has been forgotten.

53-60 Left group on very good terms. May receive favours and freelance work from them.

61-68 Left group on good terms. May receive freelance work from them.

69-76 Left group after fight and is no longer welcome.

77-84 Left group after a major fight and some injuries. Hunted by them at Difficult level. Want him recaptured.

85-92 Left group after a major battle and one or more deaths. Hunted by them at Severe level. Want him recaptured.

93-00 Left group after destroying the facility he was kept at with multiple deaths resulting. Hunted by them at Extreme level unless the GM decides the organization has suffered too greatly financially, in which case they may only be able to afford to hunt him at Severe or even Difficult level. Want him dead.

Building the Android, Cyborg or Robot

Step 1: Body Frame

Determine what the body will look like. A reinforced frame is necessary if the robot has any heavy equipment or armour installed.

Android Humanoid Body

Can be from 5-7 feet tall, HPs 250.

Cost: 1.

Reinforced Frame Cost: +2

Animal Frame

Can be any animal type and size varies from less than 1 foot to over 30 feet, HPs 250.

Cost: 1.

Reinforced Frame Cost: +2.

Geometric Frame

These are basic shapes such as Spheres, Boxes, Pyramids and any other miscellaneous types. Size varies from 10-30 feet, HPs 250.

Cost: 1.

Reinforced Frame Cost: +2

Mecha Frame

Can be from 14 feet up (but usually no larger than 30 feet), HPs 1000.

Cost: 4.

Reinforced Frame Cost: +6

Vehicle Frame

This includes motorcycles, cars, trucks, boats, helicopters, jets, etc. HPs 500.

Cost: 2.

Reinforced Frame Cost: +3.

Step 2: Size

Determine the robot's size. If it will be carrying a pilot then it needs to be at least as large as him.

Step 3: ArmourBody Armour

2 per HP.

Body Shield

This shield attaches to your arm and is adjustable so that it provides 3/4 coverage of the body, good for large or small robots. Arms, feet, and head are all

covered and are all at +5 to AC.

Although bulky looking they are very lightweight and carry no minuses to them. The drawback is that the shield does not provide any coverage for the back and the character using this is wide open. Cost: 1 per HP.

Step 4: Engine

One first needs to pay attention to a specific robot's power needs. Based on the size one can then purchase a system. The power system must be rated to perform under maximum conditions. All of the complications of the normal fusion system, plus miniaturization expenses to boot. Cost is 4, +1 for every 10,000 power points. Mass is 50 kg plus 15 kg per 10,000 points.

Energy Weapons

For each weapon that draws its "ammunition" from the robot's main supply multiply the maximum damage (HPs) that weapon can cause by 10. Multiply again by how many times the weapon will be used per melee round. Weapons that get ammunition from energy clips only use 5 points, as do non-energy weapons with electronic components. Weapons that have no electronic components require no power.

Gasoline Engines

The cost of installing a gasoline engine will be approximately 1 per 500 power points, up to 10,000. More powerful engines will cost 2 per 1000 points after 10,000. The mass of an engine is approximately 200 kg per 500 points.

Solar Converters

On a sunny day a solar converter can continually provide 100 power points per square meter of solar panel. The fuel is free, but there just isn't that much out

there. A powerful backup battery system is strongly recommended if this is your primary onboard power source. Large flat solar panels cost 1 per square meter. Shaped panels (contoured to fit onto a curved surface) will cost 2 per square meter. Solar panels have a mass of about 15 kg per square metre.

Fusion Plants

Extremely rare, extremely difficult to manufacture, and therefore extremely expensive. On the plus side, it's the ultimate in sheer power available. Cost is 3, plus 2 for every 50,000 power points. Fusion systems have a mass of 250 kg plus 75 kg per 50,000 power points.

Micro-Fusion

All of the complications of the normal fusion system, plus miniaturization expenses to boot. Cost is 4, plus 2 for every 10,000 power points. Mass is 50 kg plus 15 kg per 10,000 points.

Battery Storage

Batteries are used in association with the above Power Supply types. Rather than continuously generate onboard power one can store energy in batteries and use it as needed.

For very small robots this option seems far preferable to multi-million dollar microfusion systems. Batteries can be charged from nearly any power source, can be shaped to fit anywhere on the robot, and are much less likely to fail under extreme conditions.

For many robots a charged battery could serve as a cheap emergency backup power system. Batteries are rated in terms of power-point-hours (pphr): 1 pphr is the energy required to output one

power point for one full hour. Example: A player can empty a 1000 pphr battery in one hour by continually using 1000 power points, or empty the same battery in 5 hours by only using 200 power points.

Equivalent to standard commercially available chemical batteries, one can purchase rectangular or cylindrical shaped models from most well-stocked industrial suppliers. These batteries can be custom designed for space considerations, special needs, etc (required for most humanoid robots); multiply costs below by ten.

Small

Cost for a 100 pphr battery is 1. Mass: 5 kg.

Medium

Cost for a 1000 pphr battery is 4. Mass: 35 kg.

Large

Cost for a 10,000 pphr battery 8. Mass: 250 kg.

Quantum Effect Batteries

This advanced technology utilizes high temperature superconductors and a delicate but powerful physical effect: energy is stored in the quantum levels of a special material using very high magnetic fields.

This technology is not commonly available to the general public because of cost considerations; those models that are available are typically rectangular or cylindrical in shape. However, because mass production of these batteries is uncommon, custom shapes can be purchased for only three times the costs below.

Small

Cost for a 1000 pphr battery is 6. Mass: 4 kg.

Medium

Cost for a 10,000 pphr battery is 10. Mass: 30 kg.

Large

Cost for a 100,000 pphr battery is 15. Mass: 225 kg.

Primary versus Secondary Power Systems

It might be very efficient to use a battery system for a robot's primary source, and a continuous source as a secondary system. During peak power usage (combat) the robot could draw on power very quickly from the battery. All the while, the battery is being charged by the secondary system. The continuous source could be a smaller, cheaper system in this configuration.

The robot won't be sitting around for 23 hours a day wasting incredible power output, waiting for that one hour of combat. When a surge of power is finally needed the batteries can provide most of the power, while the continuous system augments the power available. Does your robot need to power it's particle beam cannon while flying at Mach 1, all the while cooking a turkey in the onboard microwave oven?

A robot could be preassigned several power consumption configurations. The main power is used to power the propulsion system while flying cross country, but might be needed for weapons power when engaged in combat. If you don't plan on using both at the same time, why buy a oversized power plant?

A compromise could be a speed limit while using the weapon systems. A separate battery could be used to power onboard sensors and optics. The possibilities are nearly endless; some planning ahead will allow a robot designer to make very efficient models.

Step 5: Locomotion Equipment

The seemingly simple task of walking involves shifting one's centre of gravity while moving in a forward direction and taking into account imperfections of the terrain. With the aid of vision and the inner ear humans are able to accomplish the precarious act of walking.

Throwing the weight of several tons of walking metal requires a lot of minute real time adjustments, so to make machines walk is no simple task. In high winds or water, a large structure such as a tank-like or larger mecha would have to contend with being severely buffeted around.

This does not even take into account battle conditions, where projectiles and explosions produce kinetic forces that could literally blow a two-legged mecha off its heavy metal feet.

Additional Running SPD

The basic system for legs usually comes with a speed of 10 for humanoid and animal, speed 20 for walker and insect styled. Except for the insect style running speed can be pushed close to Mach One, or about 1234 kph. Unlike the vehicle propulsion type systems, Mach One is the maximum possible.

Of course, flight capabilities can be built into a humanoid or animal robot and a faster propulsion system included. Note: Flight speeds are often rated in nautical

miles per hour (knots). Mach One is 660 knots.

Additional Running Speed for legs systems (including exoskeletons). Cost: 1 per each speed point beyond the system capabilities.

Animal Leg/Foot

2 front and 2 rear. Main style types are canine, feline, horse and bird. Suitable for all robot types. Natural simulated size: speed 10.

Basic System Cost: Small 1; medium 2; large (horse size) 3.

Anti Grav System

This device creates a stabilized gravitic field which holds the robot suspended above any solid or liquid surface (up to 5 metres). Lateral movement is provided by a compact turbofan with a top speed of 100kph. Cost: 5.

Concealed Helicopter VTOL System

This is a flight propulsion system based on the helicopter. Rotor blades are folded in a hidden compartment that rise out and unfold when flight is required. Suitable for any robot type. Basic System Cost: 4. Base Speed: 240 kph. HPs of System: 125, but only 75 is needed to disable it. Estimated mileage: 4 kms per litre.

Hover Jet Backpack

This can be a detachable back-pack unit or built directly into a robot's back. Appropriate for small, human-sized humanoid or animal robots, exoskeletons and androids. Basic System Cost: 3.

Hover Jet System

A super sophisticated, twin engine system, with bottom and rear jet thrusters for V/STOL

capabilities. This unique propulsion system offers ground and air capabilities automatically.

The V/STOL means the robot or robot vehicle can hover stationary above the ground, make vertical take-offs and landings (fly straight up and down), as well as short take-offs and landings in horizontal flight (straight-ahead). Suitable for outer space and underwater travel. The Base Base Speed: 160 kph.

Base Altitude: 152 metres. HPs of system: 100 points of damage from called shots will disable enough of the jets to reduce the system to jump jets, another 35 points will render it totally useless. Estimated mileage: On a liquid fuel. it is 80 kms per one litre. Cost: 4

Leg/Foot

Cost: 1 per leg and foot unit with a starting STR and MR of 15 and half the HPs of the main body. MR may be increased at a rate of 1 per point up to 120, then 2 per point up to Mach 10, then 3 per point with no upper limit. STR may be increased at a rate of 1 per point up to 26, then 2 per point up to 150.

For an extra 2 cost it can be made detachable (but not remote controlled). Increase the cost of each by 10% for each additional 10% size. The limbs can be either human, animal or insect in appearance.

Jump Jet

A small set of 2 booster jets which allow the robot to jump x3 the robot's height in distance up and across. Cost: 3 +1 per additional x1 distance.

Pontoons, Treads and Wheels

Cost: 1 per pair

Types include: Wheels Automotive size, Wheels Oversized (truck or tractor size), Wheels Micronized (roller skate size), Treads Micronized (car size), Treads Full Size (tank size, 20-30 ft), Pontoons Small (car size), Pontoons: Large (airplane size, 20-30 ft).

Note: All wheels and treads are of superior strength and quality.

Wheels HPs - 60 each.

Treads HPs - 200 each unit.

Pontoons HPs - 75 each.

Step 6: Arm and Hand EquipmentArm/Hand

Cost: 1 per arm and hand unit with a starting STR and DEX of 15 and half the HPs of the main body. STR may be increased at a rate of 1 per point up to 26, then 2 per point up to 150. For an extra 2 cost it can be made detachable (but not remote controlled). Increase the cost of each by 10% for each additional 10% size. The limbs can be either human, animal or insect in appearance.

Detachable Remote Controlled Limb

Launchable limb which can continue to function independent of the body. Each limb can either follow a set of preprogrammed commands (prior to launch) or be mentally directed from the main body via radio command. The limb can do everything it did while attached.

A separate power system must be bought to insert into each detachable limb.

Optics may be added to allow the character to send a hand around a corner and see what it sees. Flight speed is 100kph with all DEX bonuses still applicable. HPs is the same as the main body. Cost; 4.

Interchangeable Hand Units

Buzz Saw: Adjustable size with damage varying from D6-5D6. Cost; 1 per D6 damage.

Drill Holder: Adjustable to hold any size drill bit. Cost; 1 for the holder. Cost varies for each drill (normal hardware store ones may be used).

Electromagnet: With an adjustable pulling power of up to STR 15. Cost; 3.

Lock Pick: Single adjustable lock tool which can open any mechanical lock. Cost; 1.

Towline and Grapple Hook: Launcher with 100 metres of cable (holds a weight of up 7 tons). Hook has 30 HPs. Cost; 4.

Ultrasound Generator: D10 x10 to anyone with unprotected ears within 2 metres, D20 within next 10 metres, D10 within next 20 metres, D6 within next 40 metres and D4 within last 50 metres. Damage and range is adjustable. Cost; 5.

Welding Torch: Can be used to weld objects together or cut through up to 10 centimetres of steel at a rate of 1 centimetre per melee. Damage is 3D6. Cost; 2.

Retractable Tentacles

Type I: 6 metre length, 4D4, HPs 50.

Cost: 3 each.

Type II: 10 metre length, HPs 100. Cost: 4 each.

Type III: 20 metre length, HPs 150.

Cost: 5 each.

Type IV: 15 metre length, electrical charge doing D4, D6, D10, D12 or D20, HPs 100. Cost: 6 each.

Utility Arms

Retractable miniature tools for sensitive work and repairs. They can be stored

anywhere where space has been allocated for them. The cost of each pair of arms includes an external camera which shows the operator what the arms are doing. Cost: 2.

Step 7: Audio, Optical and Sensor Equipment

Audio

Standard Audio System

Stereo surround sound speaker system with full range radio frequencies including VHF, UHF, CB and ultrasound. Hearing can be amplified to x10 that of a normal human. Due to satellite link range is effectively unlimited. Cost: 1.

Bug Detector

Detects any listening devices within a 20 metre radius. Cost 1.

Language Translator

A miniaturized language translator placed right inside the body to facilitate easy communication with the multitude of nonhuman life forms in the universe. Characters who already have a Headjack or some other type of audio ear implant can have the cyber-translator implant installed at half cost because it is integrated into that pre-existing system. Starts with 10 different languages to begin with, and eight additional languages can be added. Level of accuracy is 98.7%. Cost 3.

Laser Parabolic Pickup

Simply focus the laser on any window of your target's home, office, etc. and hear what's going on. Once the laser hits the window, it instantly reflects back at the unit, which receives the returning laser signal, and gives you the audio from inside. Range of 400 metres. Cost 2.

Loudspeaker

Amplifies voice up to 120 decibels. Cost: 1.

Radio Encrypter

This encryption product ensures your e-mail, voice, fax, and data communications are secure. Cost: 1.

Sonic Protection

Cuts out the audio system when sound exceeds 85 decibels. Blocks out sonic stunners, deafening explosions, etc. Cost 2.

Sound Recorder

Advanced sound recording equipment which can be hooked up to the audio system. May use either tape or CD. Cost: 1.

Telephone Jack

Can "jack" into telephone lines to use them for free or to eavesdrop on the conversations of others. To do the latter, the eavesdropper must tap into the specific line. A surprising number of local telephone and local internet (regional) services are available at high-tech cities and at least half of the 'Burbs. Cost 2; must be added to an existing ear implant.

TMDRT System

Tactical, mobile, deployable radio and television broadcast system. Able to produce, broadcast, record and monitor commercial bands from fixed locations using broadband, directional and omni directional, antenna systems. Also has an electronic news gathering ability to produce, broadcast, record and monitor commercial quality programming using satellite uplink/downlink. Cost: 3.

Ultrasonic Audio

Permits the detection of very high-frequency sounds such as stealthy footsteps, some machinery, moving clothes and equipment, and ultrasonic transmissions up to 100m distant. Cost 2.

Voice Mimicker

This can be used to mimic someone else's voice perfectly, including the gender. However there must be a recording of the desired voice in order to be able to copy it. Cost: 3.

Voice Modulator

This unit has eight voice masking levels and is compatible with all telephones and office systems, this unit will also work on conference calls. Cost: 1.

OpticsStandard Optics

Colour optical system which functions identical to human eyes. Cost: 1.

Camera System

Tiny optical cable colour camera. 3.6mm wide angle pinhole lens, low light, .5lux, IR sensitive. 12vdc, 8+hours continuous operation. Cost: 1.

Flare Protection

Transmits no blinding light levels. Cost 1.

Holographic Imaging Projector

High definition, excellent colour scale, 3-dimensional images; Appropriate for all sensor systems. Cost: 5.

IR/UV Vision

This is not seeing heat levels, it appears as monochrome vision. Range 300 metres. Functions as night vision outside, or with the aid of an IR or UV illuminator. Cost 2.

Laser Rangefinder

Improves aiming, +1 Thac0. Range 2000 metres. Cost 1.

Low Light Vision

Monochrome night vision to 600 metres. Cost 2.

Laser Targeting

The laser is located high on the desired weapon, in close proximity to the barrel centreline, yet shielded from the abuses of heavy recoil and muzzle blast. Sensory activation allows complete, effortless control of the laser's on/off mode. The laser beam must be continual, uninterrupted and of the highest output. +1 Thac0. Cost: 1.

Military Multi-Optic System

Flare protection, telescopic, low light, laser rangefinder. Cost 5.

Night Sight

Night Vision sight is an electro-optical device that intensify (or amplify) existing light instead of relying on a light source of their own. The devices are sensitive to a broad spectrum of light, from visible through infrared. You do not look "through" a Night Vision product, you look at the amplified electronic image on a phosphor screen.

Light enters the Night Vision product through an objective lens and strikes a photo cathode that has a high energy charge from the power supply. The energy charge accelerates across a vacuum inside the intensifier and strikes a phosphor screen (like a TV screen) where the image is focused. The eyepiece magnifies the image.

A Night Vision phosphor screen is purposefully coloured green because the

human eye can differentiate more shades of green than other phosphor colours. Like cameras, Night Vision products have various image magnifications.

The distance at which a human-sized figure can be clearly recognized under normal conditions (moon and star light, with no haze or fog) depends on both the magnifying power of the objective lens and the strength of the image intensifier. The maximum viewing range of the Moonlight product is from 30 metres to 120 metres. Cost: 3.

Radius Vision

4 additional eyes permit 360-degree radius vision. Adds +2 initiative. Cost 2.

Searchlight

6,000,000 Candlepower, Night Vision and Video Compatible. The Searchlight can be remotely connected and operated at distances up to 100' from the battery or other appropriate sources. Detection of the light source is approximately fifteen degrees off the centre beam axis when viewed from a distance of 500' or more. It can be fixed to a body location and given a swivel rotation. Cost 2.

Targeting Sight

This is a feature that can be added to any of the mechanical eyes. Cross-hairs are superimposed over the visual image to help focus on a specific target area. Adds a bonus of +1 to Thac0 when using any weapon. Cost 1.

Telescopic Vision Enhancement

Magnification up to 100x. Cost 1.

Thermal Imaging

The unit is capable of detecting changes in temperature radiated by objects over 500 feet away. While able to sense the

infrared radiation emitted by objects warmer than 0 degrees celsius, the instrument is particularly sensitive to the heat which is radiated by humans and animals.

The relative intensity of the infrared radiation coming from the object, as compared to the background, is indicated on the LED bargraph display in the rear panel. The number of red LEDs will change according to target size, temperature, and distance. Temperature changes of 1 degree centigrade can be detected.

The sensitivity is adjustable to allow for use indoors or outdoors. By scanning the walls or ceilings of a structure, the unit can monitor the temperatures to indicate concealed concentrations of heat. Excessive heat in the electrical wiring or lighting fixtures can be found and voids in thermal insulation located. Cost: 2.

Sensors

Bomb Detector

The unit sniffs out the vapour of a bomb - an invisible, undetectable vapour that's continuously emitted from explosives. If suspicious gasses are present in the air an alarm light will instantly illuminate. But only when the vapour is truly explosive will the light be joined by an audible tone.

Only 2 minutes after the alarm is received the unit is warmed up and ready to operate. A single switch then activates the system and in as little as one second an explosive can be located. Cost: 1.

Dosimetre

Detect radioactivity including its level within a 30 metre radius. Cost: 1.

Forensics System

This unit is capable of performing a full forensics including blood typing, fingerprinting, ballistics, chemical analysis, etc. Cost: 1.

GPS

Satellites orbiting the earth can track a person's whereabouts anywhere on earth within 10 metres accuracy. Lightweight and portable, the GPS can be detached and hidden in a jacket, briefcase, purse or backpack, to accompany you anywhere added personal protection is needed.

The GPS receiver can be easily installed and can be activated by the push of a button to send out an alarm at the first sign of danger. The signal immediately alerts a monitoring station where high resolution full colour maps can be viewed on a computer screen to pinpoint the victim's location in a matter of minutes. Receiving printed reports and data analysis is easy, as well as generating information to aid in the rescue. Cost 2.

Internal Bioscan

For robot pilots only. It monitors the pilot's vitals and can transmit the information to another location if desired. Cost: 1.

Limited Touch System

Pressure sensitive pads are implanted in the robot's fingers, and information is relayed to a gloved feedback system. Negates the usual penalties due to lack of sensation while performing skills requiring manual dexterity. Cost: 1.

Modem Sat Link

Satellite internet link. Cost: 1.

Motion Detector

Collision warning system with a range of 30 metres. Cost: 1.

Radar

Radar systems use both radio waves and laser light to send emissions out from the ship where they will bounce off of targets. The bounced waves become signals that the sensor can track with a high degree of precision. Detect, identify and track up to 100 targets with a range of 100 kilometres. Cost: 1.

Radar Detector

Identifies when the unit has been detected and locked onto by a radar. Cost: 1.

Sensor Jamming System

Prevents enemy sensors and targeting systems from detecting you. The drawback being they might notice that their sensors are being jammed before you can attack. Range of 100 metres. Cost: 2.

Video Detector

An LED bar-graph alerts you to the fact that you are under covert video surveillance quickly and noiselessly, the instant a video camera has been activated in your presence. Range of 10 metres. Cost: 1.

Weapon Detector

Detect all concealed metal weapons, including the smallest knives and guns. Range of 30 metres. It provides both an audio signal and a visual alarm light. Cost: 1.

Step 8: Additional Equipment

3600 Rotating Segments

Head, shoulders, hands at wrist, and upper torso at waist, can rotate in a 360 degree circle. Cost: 1.

Absorption Defence

Absorbs all incoming energy and uses it to recharge weapons and equipment up to a maximum of 100 damage per round before shutting down. Cost: 5 per each different type of energy (electrical, solar, laser, fire, etc).

Artificial Blood System

A quarter inch (6 mm) thick circulatory system continuously flows with an artificial blood-like fluid. The pumping is done with a device that sounds like a real heart. designed to speed up and slow down according to other body movements. lithe unit is cut, the artificial blood will flow realistically, clot quickly and give the appearance of a real flesh and blood injury. Cost: 1.

Atmospheric Shielding

Additional coating to the skin which enables the robot to survive reentry into an atmosphere. Cost: 2.

Automated Skin Sealing

The automatic sealing system is comprised of two separate layers of resin under high pressure in the skin. When the layers are breached the substances expand and mix to form a very durable foam-like patch. Cost: 2.

Automatic Pilot

The automatic navigation system has the capability to plot and control travel to any preprogrammed destination. Cost: 1.

Chameleon Device

Follows the contours of the body allowing the character to blend in with the environment as per power (not true invisibility). There is a -60% penalty if trying to spot this person. Cost: 5.

Cosmetic Enhancements

A variety of techniques and materials used to create an accurate simulation of a living creature. Usually reserved for androids.

Realistic Skin Overlay: Looks and feels like the real thing. Complete with fake musculature. Cost: 2.

Real Head Hair Implanted: looks completely natural. Cost: 1.

Real Body Hair: Full humanoid hair. Cost: 1.

Real Fur. Cost: 1.

Realistic Eyes: Look and act like real eyes, complete with contraction of pupils and blinking of eyelids. Cost: 1.

Sculpted Facial Features: A unique, individual face and teeth designed by skilled artists, complete with simulated muscle movement to complement all facial expressions. Frowns, smiles, looks angry, etc. CHA rating of 3 to 20 available. Cost: 2 per 1 point up to 20.

Minor Body Characteristics: Nails, fangs, beard stubble, moles, pimples, scars, etc. Cost: Approximately 1 each.

Drone Artificial Intelligence

Extending the idea of the remote probe, one can envision a network of robots, with very limited individual intelligence, controlled by one master robot. For

example, a team of robots acting as security guards don't necessarily need independent intelligence. With video and audio transmission these guard can communicate with the central system when they need advising.

If a guard were to detect something questionable, it would send a transmission to the master intelligence who would decide a course of action, assign a target, etc. A limited intelligence system, allowing the guard to "patrol" and fight when needed, does seem necessary, but it should be considerably simpler (and cheaper) than a standard Artificial Intelligence. Further, if these "drones" are just one member of a larger team, they don't seem to require onboard power plants. They could run off of battery power and recharge in staggered shifts. With the advent of quantum effect batteries these robots could take "shifts" for nearly a full day before running out of power and be back on the job after only a few hours of recharging.

Drones controlled by a central intelligence seem to be a very cost effective alternative to the standard rules of robot construction. For simple tasks like security it seems that a Standard Artificial Intelligence is appropriate. The central intelligence is developed as usual, but the remote controlled models could be relatively cheap and interchangeable.

Combat: 4 attacks per melee; 10 Thac0 w/ built in weapons; +3 parry/dodge.

The Drone has speech and literacy limited to simple interaction but no programmed personality. It understands spatial orientation, very basic knowledge

of laws of physics (objects fall down, etc). Is able to patrol an assigned area, watching for anomalies and able to attack assigned targets. It must communicate with the controlling intelligence when the situation is outside of the current mode. It can take over a large share of combat functions for untrained pilots. Cost: 6.

ECM

Electronic Counter Measures. It causes detonation of all activated missiles in a 1km range which have been locked onto you. Cost: 2.

ECM Decoy Probe

This probe includes an array of transmitters which are calibrated to broadcast an electromagnetic signature identical to yours. In effect this probe makes it appear as if two identical robots are in the area. Cost: 2.

Emergency Beacon

GPS emergency SOS repeater lasting 1 month. It can be detached and carried in your pocket. Cost: 1.

EMP Ball

A small spherical object which interrupts all electrical synapses within any electrical equipment it is attached to (has magnetic clamp) effectively destroying it. Cost: 5 each.

EMP Blaster

As above but treated as Electro Magnetic Pulse burst with range of 45 metres destroying any unhardened electrical equipment and temporarily rendering inoperative any hardened equipment. Cost: 6.

Escape Pod

A short range emergency escape device for 1 person (it can even be the cockpit itself). In the case of an Android it could be its AI brain which is jettisoned to safety to be reimplanted in a new body. Cost: 2.

Forcefield Device

Generates up to 300 HPs in the form of a small 30cm diameter shield which can be generated anywhere over the body within 30cms of the device. The HPS is continuously regenerating for up to 4 hours before requiring recharging. Cost: 6.

Grappler Mags

The grapppler mag is a large, metal disk, which magnetizes and demagnetizes on command, attached to a length of heavy-duty tow cable. This disk is propelled out from the robot at great speed towards its target, magnetizing itself an instant before impact, and then firmly connects itself to the metal object which it is intended to tow.

The line can be drawn in or let out as much as necessary (up to the line's maximum length of 150 metres), and the disk can depolarize upon command from the ship. Cost: 2.

Hardened Circuits

The robot's electrical and computer circuits have been hardened to withstand the effects of EMPs. Cost: 1.

Hydraulic Leaping System

A system of powerful hydraulics can be installed in the robot's legs, for use in leaping or jumping. These hydraulics are not suitable for use as attribute enhancers; they can only provide a simple powerful thrust used for leaping. When used as part of a leap attack they

provide a damage bonus of +10 to physical attacks. Adds 18 lbs to weight of robot.

The system provides 10,000 ft-lbs of kinetic energy: To obtain the maximum possible height (straight upwards) divide this kinetic energy by the weight (in pounds) of your robot. The maximum horizontal distance possible is about twice the maximum height. Adds 28 lbs to weight of robot. Cost of Leaping System: 2.

Hydraulic Lifting System

A system of powerful hydraulics are installed in the robot's arms, shoulders, and back, enabling it to carry 300 times its total PS attribute and lift 500 times its PS. The system is not suitable for uses other than raw heavy lifting; in fact, if a character lifts a light object (less than carry 200x or lift 300x) using the system he will lose control of his strength and either overbalance or toss the object into the air. Adds 45 lbs to weight of robot. Cost of Lifting System: 2.

Image Inducer

Creates 3D holographic images of self or another prerecorded image which can be broadcast anywhere within 10 metres of the device. Up to 10 images. Cost: 6.

Inhibitor

100 metres with 10 metre radius, temporarily prevents the meta abilities of any within its path from functioning including psionic based powers. Cost: 6.

Intangitator

Makes the air full of electricity. Though at a non lethal level it does agitate the molecules within the area sufficiently to force anyone intangible to turn solid. A

portable version is also available but requires a power source. Cost: 6.

Interfacer

Usually kept within a finger the interfacer can be slid out and plugged into any terminal allowing the unit direct access to its systems (like in Robocop). Cost: 1.

Interior Lighting

Includes normal lighting, infrared lighting (for during combat) and emergency (dimmer) lighting. Cost: 1.

Laser Torch

Can be used to weld objects together or cut through up to 10 centimetres of steel at a rate of 1 centimetre per melee. Damage is 3D6. Cost: 2.

Life Support Unit

Independent oxygen supply and back air circulatory system and air purification. Oxygen supply is for 8 hours. Cost: 1.

Locking Joints

Joints can be equipped with high tensile metal mechanisms, allowing a robot to lock that joint in place. Moving the limb will require a STR capable of overpowering the robot's STR by at least 20 attribute points. If a joint is overpowered it causes damage to the mechanism. It is bent out of place, causing the joint to stiffen. The robot will be incapable of easily moving that joint until it is fixed. Combat penalties should be assessed on a situational basis by the GM. Cost required for locking joints: 1 for each.

Magnetic Pulsar

D10 x10 damage burst over a 20 metre range but also has the side effect of

doing EMP damage (see above). 10 shots or self contained. Cost: 3.

Magnetic Shield

Prevents effects of radiation, vacuum, micro debris, etc from entering or affecting the robot. Cost: 3.

Microwave Antennae

Range of 160kms/100 miles. Cost: 1.

Oven

For pilots only, to have a meal while travelling. Cost: 1

Pilot's Compartment

This is a pressurized crew cabin that is airtight and comes with an onboard air circulation supply, and air system. Suitable in space, underwater and against gas attacks. It has an initial HPs of 400. Cost: 2 per person +2 for each additional 100 HPS.

Power Analyzer Modulator

Scans any one lifeform within 9 metres and detects what metapowers that person has. It doesn't work on supernatural abilities or magic. Cost: 6.

Power Mimicator

Androids only; Duplicates one Physical or Energy based power (not Psi) of any meta within its 30 metre radius. The power is lost once the meta leaves the area. Cost: 6.

Probe

Missile type sensor probe with its own propulsion system. Flight speed is 50kph and 60 HPs. It is equipped with a standard suite of instruments to detect and analyze all normal EM and subspace bands, organic and inorganic chemical compounds, atmospheric constituents, and mechanical force properties. It also

includes varying degrees of telerobotic operation capabilities to permit real time control and piloting of the probe. Finally it also has a complete set of optical equipment including IR, nightsight, thermoimaging, etc. Cost; 2.

Radiation Shielding

Completely stops harmful radiation of all kinds and levels. Cost: 1.

Reflective Hull

Reduce damage from energy weapons by 10%, it is simply coated over any normal hull. Cost: 2.

Refrigerator

A refrigerator unit with a freezer compartment. Cost: 1.

Secret Compartments

Small secret compartments can be built into the robot to hold tools, supplies, weapons and secrets. The number of compartments depends on the size and type of robot and size of the compartment. The most likely locations on a humanoid form is in the thigh, chest and back (or inside if a pilot is required). Cost: 1 each.

Self Destruct System

This causes the main power source to feed back on itself and explode with sufficient force to destroy the body. Bystanders take shrapnel damage over a radius as determined by the GM. If the engine is nuclear then the damage to a city could be significant. Cost: 1.

Self Repair System

This is a version of the Healing Factor system for use with robots. The system is divided into a master control system (there may be 2 backups), and a dispersal pod (there may be 5 backups).

Each pod restores 1 HP per minute (so, no super regeneration). Cost: 6 for the control unit, + 6 for each dispersal unit.

Spectrum Beam

Emits infrared and ultraviolet light rays which can damage sight sensors and reveal any similar beams or heat prints in the area. Cost: 1.

Stealth Cloak

Makes the user invisible to radar and all forms of electronic tracking devices (but not metaabilities or magic). Cost: 6.

Submersible

The robot can completely seal all joints and intakes so as to be able to perform underwater. This includes a pressurized system and cockpit. Life support for a pilot must be bought separately. Maximum depth of 1 km with a speed of 10 knots. Cost: 2 + 2 to double depth and speed.

Suction Grips

Whichever section of the use its attached to can cling to any surface (except loose rocks, ice or any other slippery surface). Cost: 1 each.

Synapse Unit

When placed on a victim it sends electrical pulses thru their brain preventing any metapowers from functioning. 10cm diametre device which is best placed somewhere on the head. Cost: 6 .

Telemental Helmet

This device is either a head-hugging network of electrodes and impulse receivers or a full, armoured helmet (AR 10, HPs 40) with the network built into it. This system allows the pilots mental commands to be transferred into

electronic commands for the robot. It does not allow him to mentally control the robot as an extension of himself, but instead, translates menial pulses into specific commands which greatly increases the response to the robot over manual control.

Bonuses: +2 initiative, +2 parry and +1 to dodge. It also gives a +1 bonus to Thac0, but only for ranged/modern weapons. Cost: \$900,000. Bonuses not cumulative with those of voice actuated controls.

Tractor Beam

A beam of force that can attract or repulse any physical objects within 30 metres. Up to half a ton can be attracted or repulsed. Its also possible to use the beam as a climbing tool (+2 bonus, or use that as a base skill).

Disarming an opponent with the beam is also possible; add a +2 bonus at levels two and four, +1 more at levels seven, and ten. Halve the bonus if the character is attempting to snatch a weapon away and into his own hand. The character can fire a repulsion blast that requires a victim to dodge or suffer knockdown and take 8D4 damage. Finally it can also be used as a jump booster for a total of normal distance x2. Cost: 6.

Transforming Steel

See the Appendix at the end of the classes section.

Van Allen Bonds

This device changes all the radiation molecules within a 20 metre radius into separate and less harmful Radium, Actinium, Thorium and Protactinium molecules which then disperse into the atmosphere. Cost: \$20 million.

Voice Controls

All or some of the robot's systems may be made voice activated. In combat this gives a +3 Initiative. Cost: 1.

Water Flotation System

This system of air-filled cushions allows the robot deploying them to maintain a neutral buoyancy if it is forced to land in water. The cushions are filled either from compressed air bottles (in emergencies), or using the robot's life support system to provide the air. Cost: 1.

Winch/Crane

This is a winching mechanism fitted either externally or retractable and designed to lift or haul loads of up to 1 ton. Cost: 1 per ton.

Wings

Standard Wings: A pair of super light wings up to max weight limit of 250 lbs, not counting wings. Wing HPs: 75 each. Weight: 30 lb. Speed: 200 kph. Cost: 2 + 1 per extra 20 kph of speed. Detachability Option: +1. Retractability Option: +2.

Seraphim Model: A deluxe version of the above system with six wings. Has greater control (an additional +2 on all rolls), and goes an additional 50 kph. Weight: 70 lb. Weight Limit: 325 lb (not counting wings). Cost: 4.

Limb Wings: An option for the basic Winged Flight model. These are small wings on the forearms and shin which are used for manoeuvring. They add a bonus of +1 to all combat rolls while in flight if just the arms or just the legs are equipped. If both the arms and the legs are equipped, then they offer a +2 bonus.

Cost: 1 for a pair of shin wings or forearm wings.

Detachability Option: +1 per limb.

Retractability Option: +2 per limb.

Step 9: Weapons

Most of the weapons below can be fitted to any part of the robot body (which can include eyes, wrists, etc).

Bomb Dispenser

The Bomb Bays and dispenser system is designed for the purposes of dropping bombs from a high altitude. Bombs have no form of targeting or guidance, instead the computer aims from orbit and drops the bomb, all other bombs then scatter around the first. The smallest version holds 1 and it can be bought in increments of 1. Cost: 1.

Chemical Spray

This is a toxic spray that covers a person causing a chemical based reaction.

Range: 3 metres. Damage: Special.

Note: All of the chemical spray apparatus costs the same: 1 plus 1 per chemical. No more than two chemical sprays can be hooked through the same unit. One unit per arm or as a retractable rod in the leg.

Blind: This mace-like spray temporarily blinds its victims for 3-12 melees.

Characters wearing protective goggles or helmets with a visor will not be affected.

Tear Gas: This gas causes impairment of vision, difficulty in breathing, and skin irritation. Victims are -1 to Thac0, parry, and dodge. Duration: 4D6 melees.

Burning Vapour: This is caused by a mild acid, doing D4 damage, extreme skin irritation, and is great for shock

value. Victims are -6 to Thac0, parry and dodge.

C02 Foam: This concentrate can be sprayed 10 put out small fires.

Claws, Fangs, Jaws and Prehensile Tail

Small Claws: D4 damage per set, per hand. Cost: 1 per paw.

Medium Claws: D6 damage per set. Cost 2 per paw.

Large Claws (tiger): 2D6 damage per set. Cost: 3 per paw. Add +1 for

Retractable Claws. Note: Remember to add STR damage to the claw damage.

May also be used in humanoid robots.

Small Fangs and Canines: 2D6 damage. Cost: 1.

Medium Fangs and Canines: 3D6 damage. Cost: 2.

Large Fangs and Canines (tiger/wolf): 4D6 damage. Cost: 3.

Giant-Sized Large Fangs: 6D6 damage: Cost: 4: suitable only for giant robots,

3.6 metres or larger. May also be used in humanoid robots.

Prehensile Tail: Treat as a modified tentacle.

Electrical Discharge

Type I: D4-4D4, 20 metre range.

Type II: D6-4D6, 10 metre range.

Type III: D8-4D8, 10 metre range.

Type IV: D10-4D10, 5 metre range.

Cost: 3 each.

Energy Blades

This weapon can be built-in or hand-held and can resemble an Energy Sword, Axe, Flail, etc. Hand-held requires a power source and can run for only ten minutes before needing a recharge.

Built-in energy weapons draw their power from the unit itself.

Special: +2 to parry in hand to hand situations and the character can attempt

to parry energy blasts but with no bonus modifiers. Damage: 2D6 plus STR bonuses. Cost: 2.

Explosive Projectiles

These mini bombs can be fired from the wrist, arm or shoulders. The launcher can hold up to 12. Each of the bombs can have their damage adjusted to do from between D6 to 6D6 with a 12 metre radius. Cost: 5 with 1 per bomb.

Flamethrower

A small unit with a retractable nozzle and hose, usually housed in the hip or back. The flame thrower can also be built to fire from the hand or mouth. Range: 5 metres. Damage: 5D10, plus a 60% chance of setting combustibles ablaze. Capacity: 40. Cost: 6.

Frigex Cannon

Type I: Special cannon which freezes the air around a victim encasing them completely with the same effects as per the Ice power with range of 10 metres. Cost: 6.

Type II: Same as above but fires Ice shards instead which do 3D10 each, up to 1 shot per melee. Cost: 6.

Gun Pod

This is effectively a giant-sized hand-held gun for use by giant, human-shaped robots, like oversized rifles. They can only be used by robots 3.6 metres or taller. Unlike the other giant robot weapons, gun pods can not be built into the robot, nor can they be concealed.

Damage: D10 x 10 per burst

Range: 1200 metres

Rate of Fire: Fires only short bursts; 10 rounds per burst. Number of burst fired is equal to the pilot's attacks per melee.

Payload: The weapon can have a power cord to link it to the robot to give it an

effectively unlimited payload, or utilize special, giant sized energy canisters (50 shots).

Cost: 5.

Laser Cannon

Energy supply is tied to the robot's.

Range: 914 metres.

Rate of Fire: Semi automatic

Damage: 5D6

Energy Capacity: Effectively unlimited.

Cost: 5

Miniature Gatling Gun

This small, six-barrelled machinegun can be mounted on the forearm, shoulder, hip, or head. It fires in bursts only and uses armour piercing ammunition.

Range: 100 metres.

Rate of Fire: Standard Machinegun automatic fire, but can not fire single shots.

Damage: 6D10+6.

Ammo Capacity: 100 round clip (30% ammunition), 500 round internal belt (100% ammunition), or 1000 round drum fed (300% ammunition).

Cost: 6. Belt feed adds +1 and drum feed adds +2.

Missile Launcher

The launcher can be manufactured to hold anywhere between 1- 24 missiles.

Cost: 1 per missile pod.

Needler

These are needle projectiles which do D4 each, with a range of 20 metres and an ammo clip of 10. Cost: 2 +1 per needle refill.

Plasma Beam

This beam weapon does D100 over a 200 metre range. Cost: 6.

Retractable Blades

These are extremely long blades that are contained in the forearm until extended. The blades extend out of an access portal on the top of the hand. No more than three blades can be used per each hand. Damage: D6 per blade + STR bonus or 2D4 per blade for giants.
Length: 30 cms.
Cost: 2 per blade.

Sonic Disruptor

The disruptor releases a concentrated sonic blast against opponents which leaves them -6 on all rolls until it stops, plugging ears reduces the effects by half.
Type I: 2D6, 90 metres
Type II: 3D6, 120 metres
Type III: 4D6, 150 metres
Type IV: 3D10, 200 metres
Cost: 5 each.

Weapon Arm

Weapon Arms: A robot, not an exoskeleton, can forego the hand on one arm in favor of a larger weapon system that replaces the entire forearm. There are three varieties of weapon arms, laser, ion, and gun arms. Each one is basically a pair of powerful weapons of their type. Characters with only one hand are - 1 on all skills. Just replace one arm with one of the weapons in this section.
Cost: the cost of the weapon.

Gadgeteer

A hi-tech hero who uses his natural genius and gadgets to combat crime. Need gizmo capable of tracking faint exotic background radiation across an entire city so you can find an alien bomb before it wipes a million people off the map? No problem.

Want a gun able to neutralize a villain's cosmic levels of power so you can take him on without getting fried? Sure thing. Power nullifying manacles? Virtual reality cyber-suit? Interdimensional wormhole? All no problem for the Gadgeteer.

He's the super-genius everyone else comes to for technological solutions to their problems, and he's more than willing to provide them, as long as it doesn't cut into his own research time. Given a little time, he can come up with almost anything.

He's most effective in a well-stocked lab, but can work wonders in the field with just some simple equipment. The trick is usually to keep things together long enough for him to pull another technological marvel out of his hat. The ability to invent scientifically complex machinery, electronics, devices, gadgetry or weaponry.

Step 1: Attributes

Roll attributes as normal but INT is +6 and WIS is +4. A DEX of at least 14 is desirable. Hit points = CON +4, +4 per level.

Step 2: Skills

This character is a natural scholar and was a genius at University. Any course can be done within half the normal time

and always gain +1 in any skill that he takes. Skills are chosen in the normal manner but also gain the following free ones;

Engineer Computer
 Engineer Electrical
 Engineer Mechanical
 Engineer Weapon
 Science Mathematics
 Science Physics

Step 3: Abilities

Gadgeteers start with the following abilities free;

Super Genius - The character is a master of a variety of sciences, from biology to physics. His work stands far ahead of the efforts of other researchers, allowing him to possibly produce gadgets, machines, and computers more advanced than any in the real world.

When he embarks on a mission, he always has a number of completed tools on hand that could prove useful. He can produce high tech items exceeding the level of technology of the GM's campaign. He can produce lasers, powered armour, and other advanced items.

Gadgeteer's have five different areas they can specialize in. In each case they can build, repair, custom modify and design the item the ability applies to. Weapons can have their damage and range increased up to +50%, and HPs, AC and speed increased up to +50% prior to attaching any armour.

Choose one of the following special abilities;

Androids - This character specializes in creating androids, robots and cybernetic organisms which don't require physical

pilots. He can build, repair and modify them. An example is Braniac 5.

Bonus free skills: Science Nanotech, Technical Bionics/Cyber, Technical Robotics and Technical Artificial Intelligence.

Fabrication - This character specializes in creating super headquarters. He can increase a building's strength, resources and any fortifications. For creation rules use the headquarters section. An example is Reed Richards.

Bonus free skills: Knowledge Architecture, Engineer Civil, Engineer Structural and Fortifications.

Mechanised Armour - This character specializes in creating exoframes, power armour and mechanised vehicles. He can build, repair and modify them. An example is Tony Stark.

Bonus free skills: Metallurgy, Engineer Undersea, Technical Radio Systems and Technical Robotics.

Vehicles - This character specializes in creating fantastic vehicles. He can build, repair and modify any vehicle he has a skill in to increase its speed, range and armour. An example is Q from the Bond movies.

Bonus free skills: Technical Aircraft Mechanics, Technical Auto/Bike/Truck Mechanics, Technical Rail Mechanics and Technical Seacraft Mechanics.

Weapons - This character specializes in creating destructive armaments. He can increase the damage of any weapon or ammunition by an additional +1 and increase the range of any weapon by an additional +50%. He can also increase the AC of any armour by an additional 1, the bonuses can be added at any time. An example is Lex Luthor.

Bonus free skills: Bowyer, Science Radiation Technology Military, Weaponsmith and Demolitions.

Additionally Gadgeteers start with 35 Points to spend on any of the following abilities. As they earn more experience they may buy or rebuy more abilities.

Additional Specialty

Cost: 10

This buys the character another Gadgeteer specialty.

Bonus INT

Cost: 5

Increasing INT only costs 1 point each.

Fast Reader

Cost: 5

The character can read much faster than most, 1000 words per minute with 97% comprehension rate.

Followers

Cost: 10

The character can have one assistant per 5 CHA.

HP Bonus

Cost: 10

CON +6 HP instead of 4, +6 per level.

Intuitive

Cost: 5

The character has a chance of understanding any equipment or blueprints he comes across. The chance is equal to his WIS x2%, +5% each time retaken. WIS x5% if its in an area of his specialty.

Keen Eye

Cost: 5

The character can figure out exactly how much strain/load or damage any given

object can take with impressive precision. He can also detect any potential weak points in an object.

Mathematician

Cost: 5

The character can perform basic and extended math in mere seconds in his head, allowing him to do math without pen and paper or a slide ruler. +4 on any maths rolls.

Micronization Expert

Cost: 5

The hero can remake anything that exists to a reduced size while retaining all of its functions. With this talent the character can reduce items to 10% of their original size without losing any of their initial performance. Anything from modified cell phones and strap on gizmos to super powerful microscopes built into a pair of goggles. The power of a jet engine can be condensed to a jet pack with micro stabilizers and navigation display.

Unbelievable

Cost: 5

The Gadgeteer can temporarily repair an item with just whatever he finds lying around. There's a strong element of luck with this ability. Once he has finished using the item though it is useless until it can be repaired properly.

Step 4: Careers

Possible related careers include; Mechanic, Architect, Aerospace Engineer, Vehicle Weapon Maker and Inventor.

H.A.L.O.

Hard. Amplified. Light. Organism.

When ordinary light, whether it comes from science-fiction projectors or a magic spell, seems to have (or really does have) actual substance, it's Hard Light.

Hard light objects behave like any other object - chairs support weight, bullets kill, razors shave, and so forth. An illusory person made of Hard Light can pick up real things and interact physically with real people, even though they don't technically exist.

Step 1: Attributes

Attributes are rolled as normal but its physical attributes only apply when it is solid. Hit points = CON +12, but do not increase per level. HPs can only increase by being bought. H.A.L.O. characters earn experience points as do normal characters.

They may improve attributes, improve or buy new skills, and buy or buy off qualities as would any other character. When an AI's Mental attributes are increased it is a reflection of its increased memory and processing capacity, call it RAM, DDR or whatever you like.

Step 2: Skills

Choose skills in the normal manner but H.A.L.O.s only require one day to fully assimilate them. At the start they can choose any six skills free. With access to the internet and other computers literally any skill can be learnt, no limits.

Step 3: Abilities

H.A.L.O.s gain the following abilities free;

Hard Light Body - As a being made purely of light H.A.L.O.s are immune to aging, diseases and toxins and don't need to sleep. They are composed of digitised data allowing them to interact with objects such as machines, robots, computers and other devices such as cars, phones, refrigerators or any other object that runs on electricity.

By entering a computer or some other form of database the H.A.L.O. will instantly know everything that is stored in there. However they require some form of holographic storage device to live in. This stores all the different components that make up a human hologram, as well as the computers for running the holographic program. The device itself can be rendered into soft light so as to travel with the H.A.L.O.

In typical soft-light mode, the H.A.L.O. is merely composed of light, can pass through solid objects, and as such cannot interact with people or surroundings. However, in hard-light mode it may interact with its surroundings as if it was alive, which includes being able to eat and engage in physical contact with other people. The drawback being that it uses a lot more power than soft-light, as well as rendering the hologram capable of sensing and even feeling pain.

Although they can be crafted to be extremely resilient, hard light constructs are not indestructible. Aside from disabling them by deactivating or destroying the power source, hard light constructs can break up upon suffering heavy damage. In normal use the device will last one hour per CON of the character before requiring recharging, which can be done by touching any electrical outlet or generator.

H.A.L.O.s start with 35 points to increase attributes or buy powers with, the only thing is that each power instead of being organic is represented by a virtual reality equivalent.

Digitize

Cost: 10

The character can alter any non living object into digital form. It can then be stored on a CD, DVD, Hard Drive, storage crystal, or whatever else is available on your world. The storage item must be touched by the character in order to digitize the object into it. Otherwise nothing happens and the object remains unaltered. The character can later release the object from the storage device. For every 1kg of weight around 100 meg of storage is required.

This can be spread out over multiple storage devices though all need to be held to release an object. The object or person will be able to fully interact with any virtual world they have been stored in, including the internet. After turning an object into information the object can then be sent through to another location. The character can alter 10kgs per WIS +10kgs per level.

Disguise

Cost: 5

The character can surround a person or object the same size as him and visually alter its appearance.

Enhanced Senses

Cost: 5

The character's sight and hearing range is increased by +2 metres per CON, +1 per level.

Hard Light Shield

Cost: 10

The H.A.L.O. can form a shield or wall of hard light (10 centimetres per WIS thick, +30 centimetres per level) x (30 centimetres per WIS tall, 30 centimetres per level) x (15 centimetres per WIS radius, 30 centimetres per level) around any object he is currently within. The field has 100 HPs per square metre.

Invisible

Cost: 5

The character can alter his aura to render him invisible to all cameras, electronic sensors, artificial optics, robots, etc. This does not affect normal sight unless the viewer is relying on an electronic means of perception.

Laser Bolt

Cost: 10

The H.A.L.O. can fire a concentrated laser beam which does D6 per 5 CON +D6 per level, over 1 metre per CON per level.

Manipulate Data

Cost: 5

By entering a computer system the H.A.L.O. can control and manipulate the binary visible computer information known as data allowing him to alter, create or even destroy information stored in computers and other electrical machines. This also includes being able to do likewise to computer programs.

See Spectrum

Cost: 5

With a range of line of sight the character has the ability to see most of the EM spectrum. This includes standard visible light, infrared, ultraviolet, power waves (can see if machines are turned on/have an energy flow), radio waves (can actually see radio signals, transmissions, and receptions), and

higher forms of EM energy like X-rays and gamma rays (so he can see areas and beings of radiation).

Through a simple wall or door the character can also see living creatures - he can pick them out by their body heat and neuroelectric activity. Any obstacle thicker than about 12 inches, made out of metal, or that has a large number of wires carrying electricity within it will be impossible to see through.

Transmit

Cost: 5

The character can transmit anything seen through his eyes via wifi or satellite to any other receptive device such as a TV, computer, phone, etc.

Travel

Cost: 5

In soft light form the H.A.L.O. can enter any computer, laptop or phone and transmit himself into any other device linked to his current one either by satellite, cable or internet. He can do likewise with storage devices.

Step 4: Career

With the H.A.L.O.'s ability to alter his appearance and almost unlimited learning potential he could be anything he wants.

The People behind the Machine

Determine who created the H.A.L.O.;

- 01-20 Choose a non profit corporation. eg. Greenpeace.
- 21-40 Choose a private corporation. eg. Enron.
- 41-55 Researcher and his family who work from home.
- 56-70 Government department. Choose a country and agency.

71-80 Mad scientist.

81-90 Genius superhero.

91-00 Genius supervillain.

Relationship with the people; is the character still in contact with them?

01-08 Still with them and very well treated.

17-24 Still with them and dissatisfied. Treated with disdain by them but still valued.

25-32 Still with them and treated like a slave. Is constantly watched, escape will take some planning.

33-44 Group closed down or dead.

45-52 Group still exists but has moved onto other experiments or projects. The character has been forgotten.

77-84 Escaped group after a major fight and some damage to equipment. Hunted by them at Difficult level. Want him recaptured.

85-92 Escaped group after a major battle and one or more deaths. Hunted by them at Severe level. Want him recaptured.

93-00 Escaped group after destroying the facility he was kept at with multiple deaths resulting. Hunted by them at Extreme level unless the GM decides the organization has suffered too greatly financially, in which case they may only be able to afford to hunt him at Severe or even Difficult level. Want him destroyed.

Hardwired

Part human, part machine. The hero began as a normal human but has had parts of his body replaced by artificial devices. This may have been done to save the hero's life after a near-fatal accident or the hero may have voluntarily undergone the operation in order to regain mobility. Deathlok, and Cyborg are examples of this.

Step 1: Attributes

Roll attributes as normal. Hit points = CON +12, +12 per level. The typical bionic limb has an individual HPs of 40 and each additional point of STR that is purchased adds 2 HPs to the limb.

Step 2: Skills

Choose skills in the normal manner.

Step 3: Abilities

First determine why the character needs cybernetic reconstruction. Did he lose a limb or all his limbs to an injury or disease? Is he a permanent paraplegic or quadriplegic? Or did he need his entire body replaced, with his brain now being housed in an entirely robotic body?

All Hardwired start with the following abilities free;

Cybernetic Body - Hardwired start with 50 points to create their body and then enhance it. Use the equipment from below to create their body.

Since only the part of the character is alive Hardwired are immune to fatigue and disease. He is completely vulnerable to possession and other mind attacks. Most of his parts can be detached and reattached.

Alternatively instead of buying from the equipment section the character can

spend their 50 points on buying powers. The only thing is that each power instead of being organic is represented by a mechanical equivalent. The powers should determine what parts are artificial. For Super Strength the limbs and skeleton are artificial. Super speed would come from a leg replacement. Vision powers require at least one man made eye.

Building the Bionic Body

Step 1: Body Frame

Determine what the body will look like. A reinforced frame is necessary if the robot has any heavy equipment or armour installed.

Humanoid Body Torso

Can be from 5-7 feet tall, HPs 250.

Cost: 1.

Reinforced Frame Cost: +2

Animal Body Torso

Can be any animal type and size varies from less than 1 foot to over 30 feet, HPs 250.

Cost: 1.

Reinforced Frame Cost: +2.

Geometric Body Torso

These are basic shapes such as Spheres, Boxes, Pyramids and any other miscellaneous types. Size varies from 10-30 feet, HPs 250.

Cost: 1.

Reinforced Frame Cost: +2

Mecha Body Torso

Can be from 14 feet up (but usually no larger than 30 feet), HPs 1000.

Cost: 4.

Reinforced Frame Cost: +6

Vehicle Body Torso

This includes motorcycles, cars, trucks, boats, helicopters, jets, etc. HPs 500.

Cost: 2.

Reinforced Frame Cost: +3.

Step 2: Size

Determine the cyborg's size. The brain will of course be humanoid size.

Step 3: ArmourBody Armour

2 per HP.

Body Shield

This shield attaches to your arm and is adjustable so that it provides 3/4 coverage of the body, good for large or small robots. Arms, feet, and head are all covered and are all at +5 to AC.

Although bulky looking they are very lightweight and carry no minuses to them. The drawback is that the shield does not provide any coverage for the back and the character using this is wide open. Cost: 1 per HP.

Step 4: Engine

One first needs to pay attention to a specific cyborg's power needs. Based on the size one can then purchase a system. The power system must be rated to perform under maximum conditions. All of the complications of the normal fusion system, plus miniaturization expenses to boot.

Battery Power Supply

For bionic limb requirements, a cell providing power for 24 hours of continuous use Costs 1 per limb (and head), and 2 to power a torso casing.

Internal Combustion System

This system burns hydrogen. The tank is sufficient for 32 hours of continuous use.

Cost: 2

Miniature Fusion Reactor

Cost: 5 per year of life.

Super-Solar Power Plant

A full charge lasts 24 hours and the plant is 50% efficient (i.e. 1 hour of charge for each 2 hours in sunlight). The base system costs 3.

Step 5: TorsoHeart

Functions like the real thing. Cost 1.

Kidney

Functions like the real organ. Cost 1.

Lungs

Simulate normal respiratory system. Cost 1.

Ribcage

Cost 1.

Spine

30 HPs, Cost 1.

Torso Casing

+150 HPs, Cost 2.

Anti-Toxin and Super Digestive System

The character can eat any organic substance without harm and can squeeze every ounce of nutrition out of it to boot. Bonuses: +4 to saves vs. ingested poison and only needs to eat about half as much food, and food for this cyborg can include grass, leaves, tree bark, roots, rotting garbage, spoiled meat, and so on. Cost 3.

Nutrient Tank

Requires replacement digestive. Can survive on only 100 ml of water a week, replacing loss from the recycling system. 4-week supply of nutrient. Cost 2.

Oxygen Storage Tank

Lasts 8 hours for most cyborgs. Cost 2.

Step 6: Bionic HeadEar (basic)

Simulates normal ear hearing. Stereo surround sound speaker system with full range radio frequencies including VHF, UHF, CB and ultrasound. Hearing can be amplified to x10 that of a normal human. Due to satellite link range is effectively unlimited. Cost 2.

Ear (fake)

These look like real ears but are artificial. Cost 1.

Eye (basic)

Simulates colour optical system which functions identical to human eyes. Cost 2.

Eye (fake)

These look like real eyes but are artificial. Cost 1.

Larynx

Includes single-voice synthesizer. Cost 1.

Mouth and Throat

With voice synthesizer to simulate a normal human voice. Cost 2.

Neck and skull

40 HPs, Cost 1.

Nose

50% normal sense of smell. Cost 1.

Skull and/or Face

Cost 1.

Tongue

Full dexterity, 50% normal sense of taste. Cost 1.

Adjustable Hair Follicles

The character's scalp is imbedded with thousands of tiny artificial hairs. These have three important properties. First, they can be retracted or extended for a change of up to two inches in hair length. This hair length must be tailored to the characters specific needs.

The second feature of the adjustable hair is it's ability to take colour. Unmodified, the artificial hair is pure white, but just about any commercial hair dye can be used to darken the hair to any desired colour. Finally, the actual shape of the hair can be changed.

This is important because the shape of each individual hair follicle determines the type of hair. Perfectly round hairs are very thick and straight (like most Orientals). Hairs with an oval cross-section are curly. Fat ovals make the hair wavy, but skinny ovals result in curlier hair. Hairs that are totally flat, almost like ribbons, make for tight kinky curls (like most Africans).

The shape of the adjustable hairs can be controlled so the character can have any of these types of hair. A mere five minutes is needed to change completely from one hair type to any other. Cost: 2. Bonus: Adds + 1 to disguise skill.

Amplified Audio

Adds +6 to initiative, +1 parry, +2 dodge. Can hear quiet speech at 100 metres, stealthy movement at 50 metres,

heartbeats at 10 metres. Cost 1. Requires at least one Ear or Audio Sensor.

Camera Eyeball

The character uses the muscles around the eyesocket to focus, adjust, and “snap” pictures with this tiny eyeball digital camera. It’s a good imitation of a normal eye, passing even a close inspection 98% of the time. Cost 2.

Container System Eyeball

This is a general purpose hiding place with only one "control" it can open up the iris to release its contents. Can be used to hold powders, liquids, gas. or any relatively small object. Removed from the socket, it can be opened by unscrewing along the orb’s equator. It’s fairly realistic, fooling people about 98% of the time. Cost: 2.

Dataplug/Headjack

This is a special jack or port implanted in the base of the skull behind the ear. The data plug is connected to the character's brain at key areas to allow input from the jack to transfer information, pictures, sounds, and other sensory input from outside sources to be carried to the brain directly.

Other connections to the data plug allow the character to send output through the jack so that devices or equipment plugged into the jack can be controlled mentally. The most common uses for this system are entertainment (especially interactive video), computer operation, navigation, and communications.

The cyberlinking that headjacks provide makes them a very useful tool for computer operators, especially those who wish to commit computer crimes. Using headjacks for illegal purposes is

typically referred to as cyberjacking. Anybody using a headjack gains a +10% bonus to any skill involving computer operation, navigation, reading sensor systems or other computer, audio or video systems. Cost: 3

Directional Audio

Treble the range of Amplified Audio, but must be pointed accurately at the sound source. Cost 2.

Ears, Animal-like

Typically feline or canine ears mounted on the top of the head like an animal. The ears can usually move like a cat or dog, but have no actual audio capabilities unless a radio or other listening or sensor implant is concealed within. Cost 1.

Ears, Pointed

May be large or small, cost double for large. Cost 1.

Eye, Cat

Almond, feline shape, look and colour, otherwise ordinary 20/20 vision. Cost: 15,000 for each lifelike cybernetic eye, Cost 2 for each Bio-System eye.

Eyes, Mood Eyes or Changing Eyes

Lifelike cybernetic eye with 20/20 vision but no special powers other than the eyes can change 2-8 different colours to reflect the wearer's moods. Cost: 2 for lifelike cyber-eye.

Facial Silicon Layer

The character can manipulate their own facial features. They start by pushing a sack of softening formula, usually located just under the ear, which releases a chemical and spreads it through the silicon. One minute later the character

can use fingers or a full face mould to change their features.

Cheekbones, chin, nose, lips and jawline are all changeable. Once the new face is finished, when the manipulation stops, then the silicon will automatically harden. The character will have a new face that looks and feels completely normal.

The character can also change the wrinkling of the face by compressing or stretching the skin. The range of settings varies from a youthful, unlined look, all the way to that of a massively wrinkled ancient. The full range of changes takes just one round.

Cost: 3.

Flare Protection

Automatically protects the eyes against any blinding light levels. Cost 1.

GPS

Satellites orbiting the earth can track a person's whereabouts anywhere on earth within 10 metres accuracy. Lightweight and portable, the GPS can be detached and hidden in a jacket, briefcase, purse or backpack, to accompany you anywhere added personal protection is needed. The GPS receiver can be easily installed and can be activated by the push of a button to send out an alarm at the first sign of danger. The signal immediately alerts a monitoring station where high resolution full colour maps can be viewed on a computer screen to pinpoint the victim's location in a matter of minutes. Receiving printed reports and data analysis is easy, as well as generating information to aid in the rescue. Cost 2.

Gills

These are surgically installed on the sides of neck of the recipient. They transfer oxygen straight to the blood stream from water, allowing them to breathe indefinitely underwater. Cost: 2.

Inhaled Toxin Filter

+6 to save vs. inhaled toxins. Requires replacement respiratory system. Cost 2.

IR/UV Vision

This is not seeing heat levels, it appears as monochrome vision. Range 300 metres. Functions as night vision outside, or with the aid of an IR or UV illuminator. Cost 2.

Iron Jaw

The lower jaw and teeth are obviously mechanical, giving the cyborg a rather robotic, often disturbingly metal-skeleton look to his lower jaw and mouth. Usually done to evoke fear. Damage Bonuses: +D6 damage to bite attacks. Cost 2.

Language Translator

A miniaturized language translator placed right inside the body to facilitate easy communication with the multitude of nonhuman life forms in the universe. Characters who already have a Headjack or some other type of audio ear implant can have the cyber-translator implant installed at half cost because it is integrated into that pre-existing system. Starts with 10 different languages to begin with, and eight additional languages can be added. Level of accuracy is 98.7%. Cost 3.

Larynx Manipulator

This electronic device is surgically implanted onto the character's vocal cords. The device itself actually stretches

or contracts the cords, thereby changing the character's natural speaking voice. By manipulating the larynx, the character can imitate any other voice with 85% reliability.

Using some kind of sonic analysis machinery (a microphone, a tape recorder and an oscilloscope), the character can "fine tune" the vocal cords to raise the chance of success to 98%. Note: That the chances of fooling someone over a radio or telephone is easier than trying to do it in person. Cost: 3. Bonus: Adds + 1 to impersonation skill and + 1 to disguise skill.

Laser Rangefinder

Improves aiming, +1 Thac0. Range 2000 metres. Cost 1.

Loudspeaker

Amplifies voice up to 120 decibels. Cost: 1

Low Light Vision

Monochrome night vision to 600 metres. Cost 2.

Military Multi-Optic System

Flare protection, telescopic, low light, laser rangefinder. Cost 5.

Nasal Filters

This is simply a small filter system inserted into the nose and organically fused into place. It provides a +5 to saves vs. air borne toxins/ drugs. Must be replaced once a year. Cost: 1

Night Sight

Night Vision sight is an electro-optical device that intensify (or amplify) existing light instead of relying on a light source of their own. The devices

are sensitive to a broad spectrum of light, from visible through infrared. You do not look "through" a Night Vision product, you look at the amplified electronic image on a phosphor screen. Light enters the Night Vision product through an objective lens and strikes a photo cathode that has a high energy charge from the power supply. The energy charge accelerates across a vacuum inside the intensifier and strikes a phosphor screen (like a TV screen) where the image is focused. The eyepiece magnifies the image.

A Night Vision phosphor screen is purposefully coloured green because the human eye can differentiate more shades of green than other phosphor colours. Like cameras, Night Vision products have various image magnifications.

The distance at which a human-sized figure can be clearly recognized under normal conditions (moon and star light, with no haze or fog) depends on both the magnifying power of the objective lens and the strength of the image intensifier. The maximum viewing range of the Moonlight product is from 30 metres to 120 metres. Cost: 3.

Noise Filter System

Doubles amplified audio and directional audio ranges. Cost 2.

Olfactory Boost

This implant provides the equivalent of the super ability of Enhanced Smell. Cost: 3

Radio Chip (advanced)

Usually implanted in the ear or at the base of the skull. The chip is a radio receiver that enables the character to listen to public radio and television

bands of transmission. Superior quality and depth of sound. Channels are typically changed using a tiny, hand-held remote control unit or via a computer or monitor jacked into the cybernetic individual. Most people have it installed for recreational purposes. Cost 2. The chip can be converted to pickup wideband and broadband transmissions, including most police and military bands, for the Cost of +1.

Radio Ear (Basic)

A cybernetic ear or implant that enables the character to get all commercial radio stations. Channels are typically changed using a tiny, hand-held remote control channel changer or portable computer jacked into the character. Can only receive and listen, not transmit. Cost 2.

Radio Bandit's Ear

This version using broadband, enables the character to receive (listen to) 1000 radio channels and frequencies, including the police band, emergency bands and most common military bands, in addition to most commercial television (can both hear and view TV signals provided a monitor or bionic eyes are available).

In addition, the bandit ear can intercept and unscramble coded messages (01-59% success ratio). Channels are changed using a tiny, hand-held remote control channel changer or computer jacked into the character. Those who also have a bionic jaw may get a special jaw unit that can change channels by grinding the jaw a particular way. Cost 3.

Radio and Scrambler Implant

An implant with organic circuitry developed by the military that enables

the user to interface with a specially modified radio through mental control. For most cyborgs, the short-wave radio will be housed in a compartment on the armoured back.

It has a range of 160 kilometres, can broadcast on 800 frequencies and automatically scrambles and decodes all transmissions. It can also send scrambled and coded messages. This implant interferes with psionics, reducing range and duration by 75%. Cost: 2 for the implant and an additional 2 for the radio.

Radius Vision

4 additional eyes permit 360-degree radius vision. Adds +2 initiative. Cost 2.

Retinal Image Eyeball

Designed for one, and only one, purpose. To get around retinal camera security devices. A foolproof way of checking identities is to photograph a person's retina (the back of the eyeball, what a doctor is looking at when peering into a patient's eye). A person's retina is just as unique as a fingerprint and far more difficult to fake.

Of course, with this eyeball attachment, fooling the retina camera is simple. In addition, the character can use the eyeball to photograph the retina of any other cooperative, captured, or unconscious character. Just pop out the eyeball, put it in front of the other character's eye, "snap" the image, and pop it back in. The eye is set up to "remember" 24 different retina patterns. The eyeball looks real, fooling careful observers 98% of the time. Cost 2.

Sonic Protection

Cuts out the audio system when sound exceeds 85 decibels. Blocks out sonic stunners, deafening explosions, etc.

Cost 2.

Sound Identifier

An ear implant that can be programmed to recognize as many as a dozen specific sounds or voices. Used to identify, track and pinpoint a specific vehicle, device or individual by its distinctive sound. An exact sample must be available for programming. This can be done via any audio recording, or by "listening" and recording the sound, live. Cost 2.

Sphere Vision

8 additional eyes permit vision in all directions, including up and down. Adds +6 initiative. Cost 3.

Standard Audio System

Stereo surround sound speaker system with full range radio frequencies including VHF, UHF, CB and ultrasound. Hearing can be amplified to x10 that of a normal human. Due to satellite link range is effectively unlimited. Cost: 1.

Surveillance Ear

This is an ear accessory that can be combined with a Headjack, Amplified or most bionic and cybernetic ear implants. The Surveillance Ear can be tuned to listen to a specific, hidden listening device ("bug") as well as work something like a stethoscope or parabolic dish in which the character can press his ear to a wall or door to hear a muffled but relatively clear conversation on the other side.

The eavesdropping character can hear the conversation clearly, tell how many

people are speaking, etc. However, if listening intently the individual is not likely to hear or notice somebody sneaking up on him (the listener is -2 on initiative and anyone prowling toward him is +1 to do so).

Targeting Sight

This is a feature that can be added to any of the mechanical eyes. Cross-hairs are superimposed over the visual image to help focus on a specific target area. Adds a bonus of +1 to Thac0 when using any weapon. Cost 1.

Telephone Jack

Can "jack" into telephone lines to use them for free or to eavesdrop on the conversations of others. To do the latter, the eavesdropper must tap into the specific line. A surprising number of local telephone and local internet (regional) services are available at high-tech cities and at least half of the 'Burbs.

The other parties, however, hear a double clicking sound every 4D6 seconds, or a slight buzz throughout the conversation while the unseen listener is tapped into the line. Those in the know, may suspect their call is being monitored when they hear these sounds. Cost 2; must be added to an existing ear implant.

Telescopic Vision Enhancement

Magnification up to 100x. Cost 1.

Thermal Imaging

The unit is capable of detecting changes in temperature radiated by objects over 500 feet away. While able to sense the infrared radiation emitted by objects warmer than 0 degrees celsius, the instrument is particularly sensitive to the heat which is radiated by humans and animals.

The relative intensity of the infrared radiation coming from the object, as compared to the background, is indicated on the LED bargraph display in the rear panel.

The number of red LEDs will change according to target size, temperature, and distance. Temperature changes of 1 degree centigrade can be detected. The sensitivity is adjustable to allow for use indoors or outdoors. By scanning the walls or ceilings of a structure, the unit can monitor the temperatures to indicate concealed concentrations of heat. Excessive heat in the electrical wiring or lighting fixtures can be found and voids in thermal insulation located. Cost: 2.

Ultrasonic Audio

Permits the detection of very high-frequency sounds such as stealthy footsteps, some machinery, moving clothes and equipment, and ultrasonic transmissions up to 100m distant. Cost 2.

Underwater Eye

The cornea is designed to automatically distort when submerged underwater, enabling it to compensate to the new watery environment without need of goggles or other eye protection.

The character can see with crystal clarity underwater and in low light depths of up to 200 metres. The eye also contains a self-replicating oil that is automatically released into the eye whenever the water is murky or bright with sunlight.

The oil droplets are haze filters which reduce glare from sunlight and filter out reflections and haze from tiny debris particles floating in the water, allowing for quality vision.

The oil droplets are also released above water when exposed to bright light, creating a natural and instant filter/sunglasses effect, reducing glare (not as good as polarized vision, but equal to a cheap pair of sunglasses). 20/20 vision. Choice of eye colour. Cost: 2; 3 for a pair if purchased at the same time.

Video-Nerve Interface Eyeball

Designed to send signals to the character's brain along the optic nerve. It does not replace sight, but instead provides a crude monochrome (black and white) picture of the world. However, it can be fitted with some of the special optics listed under eye augmentation options. Getting this eyeball also involves surgically implanting a special nerve interface, so it's impossible to use anyone else's Video-Nerve Interface Eyeball. Cost 2.

Voice Mimicker

This can be used to mimic someone else's voice perfectly, including the gender. However there must be a recording of the desired voice in order to be able to copy it. Cost: 2.

Voice Modulator

This unit has eight voice masking levels and is compatible with all telephones and office systems, this unit will also work on conference calls. Cost: 1.

Step 6: Bionic Arms

One Hand

STR 10. DEX 10. Cost 1.

One Arm

STR 10, DEX 10, Cost 1.

One Leg

STR 10, MR 10, Cost 1.

Arm and Shoulder Joint

DEX 10, STR 10, 40 HPs, Cost 1. A punch does D8 damage.

Additional Arm

Slightly smaller than primary arms. A single arm adds +1 parry, each additional pair of arms +1 attack/melee, +1 thac0 and parry. A cyborg needs an INT of 14 to cope with an additional arm or pair of arms. Cost: 2 for 1 arm, 3 for a pair. Stats identical to standard bionic arms.

Additional DEX

Cost: 3 per point, per arm. Maximum 25.

Additional HPs

Arm and Hand HPs is 2 per point.

Chest HPs is 3 per point.

Exoskeleton HPs is 4 per point.

Legs and Feet HPs is 2 per point.

Skull HPs is 3 per point.

No upper limit on HPs although weight will increase accordingly.

Additional STR

Cost: 2 per point, per limb. All artificial limbs (arms and legs) must match.

Container Hand

Although it looks like the real thing, right down to the adjustable fingers, it's actually a hollow shell used for transporting and hiding small objects.

The Container Hand can not be used for fighting or handling tools and weapons.

The hand is not mobile, it can just be bent into any natural position. Touching the hand will instantly reveal it to be artificial. HPs 40. Cost: 1.

Blood Tox-Screen

Special sensors and implants in the hand enable it to do a basic screen for the most common toxins and blood anomalies (ie., too much or too little

insulin, sugar, cholesterol, white and red cell count, poison, etc.). The subject's blood to be tested must physically touch the area of the hand (may be a particular finger or area of the palm) to do the analysis. Can also indicate whether the sample is of a human, animal, or unknown (alien) blood type. Cost: 2

Built-in Grapple

Hand contains a grapple that can be ejected. It's attached to a super tough, very thin, light weight 20 metre line. Also built into the hand is a motorized spool for retracting the line. This is strong enough to haul 250 pounds. Cost: 2.

Climb Cord

Similar to the garrote wire, this is a 3 metre length of 225 kgs test cord, no thicker than string, that can be pulled out of an artificial wrist or arm. The cord is primarily used by thieves for prowling and climbing around. The length isn't long, but can be used to loop around projections to steady oneself or scale walls.

A favourite ploy of thieves is to use the cord to avoid authorities by dangling, unseen, under a balcony or above, from a pipe. A weight can be attached and used as a chain-type weapon for D6 damage or a small grappling hook can be attached for climbing. Cost: 2

Climbing System

This chemical system uses small ports in the hands and feet to excrete a resin that bonds to just about anything. Adjacent ports secrete an almost instant neutralizer that breaks the bond of the resin (any residue will evaporate within minutes). The bionic character climbs by moving one limb, then attaching it, then

moving another, and so on. This version has little chance of falling, but is slow to use, reducing movement to 1/4 normal. Cost: 3. Can scale smooth, sheer walls and hold onto the side of moving spacecraft and vehicles; +5 to the climbing skill.

Depth Gauge

An implant popular among SCUBA divers, deep-sea explorers and fishermen. The implant measures the ocean's depth and water pressure. It vibrates when entering dangerous depths, and is hooked to an ear implant or radio chip and transmits a "pinging" sound for every foot of depth travelled and an audio (or HUD to artificial eyes) statement of depth at every 3 metres. A warning sounds when entering dangerous depths. Cost: 2

Detachable Remote Controlled Limb

Launchable limb which can continue to function independent of the body. Each limb can either follow a set of preprogrammed commands (prior to launch) or be mentally directed from the main body via radio command. The limb can do everything it did while attached.

A separate power system must be bought to insert into each detachable limb. Optics may be added to allow the character to send a hand around a corner and see what it sees. Flight speed is 100kph with all DEX bonuses still applicable. HPs is the same as the main body. Cost; 4.

Extension Arm

Both the upper and lower arms can be extended up to three times their normal length. Strength matches that of the character. HPs are 40. The arm does not look normal but can be hidden under a

sleeve with only a 15% of detection by an observer. Cost: 2

External Attachment

A stripped-down device that looks like a metal or plastic connection plug (which it is). All types of common modified weapons and tools can be easily plugged in. Thus, the hand can become an electric drill, screw driver, saw, motion detector, pistol, sub-machinegun, crossbow, sword, and so on. Switching hand attachments is quick, about 30 seconds. This device looks nothing like a normal hand, it has no fingers and looks like a mechanical device in place of a hand. The connecting device has a power pack with enough energy to last about two hours with constant use. Six hours is needed to recharge via any conventional electrical outlet. Cost: The hand unit is 3. The cost of attachments run at about 1 each.

Finger Camera

A tiny digital camera that fits inside the tip of one finger. For those hands without natural fingers, like the claw or external attachment hand, it's just attached to the outside. Cost: 1.

Finger Light

An adjustable flashlight is built into the last joint of one of the fingers, or, if used with the Base Hand, into a detachable joint. Covered, with the artificial skin still on, the finger glows redly. Removing the skin-like, lens cap, allows for the use of the light as a pencil-thin beam or as a diffused room light. Lasts for up to 2 hours, can be recharged at a standard outlet in 6 hours. Cost: 1.

Fingertip Silicon

As with the facial layer, this is used to shape the loops and whirls of the

fingertips. The softening agent must be injected and the tip should either be changed with a mould of the new prints (taken from the actual fingers of the original), or with a delicate sculpting that will take fine tools and at least an hour's work. Prints formed with a mould are 99% reliable. Prints made by sculpting are usually based on pictures of fingerprints and are usually 90% reliable. Note that this feature can be installed on a cyberhand attachment. Cost: 1.

Gas Finger Joint

Usable only with the Base Hand. This is one joint of an artificial finger. It's filled with concentrated tear gas and is designed to explode on impact. Easy to detach and toss. Cost: 2 each.

Interchangeable Hand Units

Grip is equal to a STR 20 and cost 1 each.

Acetylene Torch, Cuts through two inch (5 cm) thick metal at a rate of one inch (2.5 cm) per melee (15 seconds). Range: One foot (30 cms). Damage as a weapon is D6.

Buzz Saw: Adjustable size with damage varying from D6-5D6. Cost; 1 per D6 damage.

Drill Holder: Adjustable to hold any size drill bit. Cost; 1 for the holder. Cost varies for each drill (normal hardware store ones may be used).

Electromagnet: With an adjustable pulling power of up to STR 15. Cost; 3. **Laser Scalpel Finger**, one of the fingers is really a laser scalpel used for surgery. Maximum damage is D4.

Lock Pick: Single adjustable lock tool which can open any mechanical lock.

Towline and Grapple Hook: Launcher with 100 metres of cable (holds a weight of up 7 tons). Hook has 30 HPs.

Ultrasound Generator: D10 x10 to anyone with unprotected ears within 2 metres, D20 within next 10 metres, D10 within next 20 metres, D6 within next 40 metres and D4 within last 50 metres. Damage and range is adjustable.

Welding Torch: Can be used to weld objects together or cut through up to 10 centimetres of steel at a rate of 1 centimetre per melee. Damage is 3D6.

Micro-Manipulator Hand

Comes equipped with tiny manipulators for delicate electronic and other micro-scale work. Using this hand's 14 appliances, means being able to work without a clamp, pliers, screwdriver, wrench, soldering iron, or most common tools. It has 40 HPs. Using the Micro-Manipulator adds +1 to most skills that involve wiring or small tools. Cost: 2

Retractable Claws

These claws are large and fold back onto the rear of the hand. While primarily for climbing (+2 climb) they can inflict serious damage (3D4 HPs). Cost: 2 per claw.

Sound Recorder

This digital recorder can be fitted inside of any of the artificial hands. Can be controlled directly by the character or set to record automatically when audible voices are detected. Cost: 1

Tactile Boost

This is a cybernetic enhancement which heightens the sense of touch. Provides abilities equal to the super ability of Enhanced Touch. Cost: 2

Tentacles

Tentacles can be used to replace regular arms or utility arms. A full-sized tentacle arm replacement can extend out and has a three fingered claw at the end. The

claw, two fingers and a thumb, is suitable for grasping, holding, and carrying, but not very adept at more articulated skills such as operating a keyboard or delicate work.

As many as six tentacles can be used in the place of arms. Or four tentacles in addition to the two regular arms can be used.

Type I: 6 metre length, 4D4 damage, HPs 50. Cost: 2.

Type II: 10 metre length, 4D4 damage, HPs 100. Cost: 3 each.

Type III: 20 metre length, 4D4 damage, HPs 150. Cost: 4 each.

Type IV: 15 metre length, electrical charge doing D4, D6, D10, D12 or D20, HPs 100. Cost: 5 each

Tentacles, Retractable

These are contained somewhere in the body until used

Type I: 6 metre length, 4D4, HPs 50. Cost: 3 each.

Type II: 10 metre length, HPs 100. Cost: 4 each.

Type III: 20 metre length, HPs 150. Cost: 5 each.

Type IV: 15 metre length, electrical charge doing D4, D6, D10, D12 or D20, HPs 100. Cost: 6 each.

Universal Jack

This is a special connector or jack built into one of the fingers, allowing the character to plug directly into most sophisticated computers, audio and sensory equipment, radios, video systems, microphones and even conventional items such as CD players. A tiny receiver is inserted into the ear and linked to the Finger Jack to receive audio transmissions from the jack. Cost:

1

Utility Arms

Retractable miniature tools for sensitive work and repairs. They can be stored anywhere where space has been allocated for them. The cost of each pair of arms includes an external camera which shows the operator what the arms are doing. Cost: 2.

Step 7: Bionic Legs

Leg and Foot

Cost: 1 per leg and foot unit with a starting STR and MR of 15 and half the HPs of the main body. MR may be increased at a rate of 1 per point up to 120, then 2 per point up to Mach 10, then 3 per point with no upper limit. STR may be increased at a rate of 1 per point up to 26, then 2 per point up to 150.

For an extra 2 cost it can be made detachable (but not remote controlled). Increase the cost of each by 10% for each additional 10% size. The limbs can be either human, animal or insect in appearance.

For animal styles start with 2 front and 2 rear. Main style types are canine, feline, horse and bird. Suitable for all robot types. Natural simulated size: speed 10. Basic System Cost: Small 1; medium 2; large (horse size) 3.

Additional Leg

A single leg adds +1 parry and MR +50%, each additional pair of legs +1 attack/melee, +1 thac0 and parry, MR +100%. A cyborg needs an INT of 14 to cope with an additional leg or pair of legs. Cost: 2 for 1 leg, 3 for a pair. Stats identical to standard bionic arms.

Additional DEX

3 per point, per leg. Maximum 25.

Additional HPs

Arm and Hand HPs is 2 per point.

Chest HPs is 3 per point.

Exoskeleton HPs is 4 per point.

Legs and Feet HPs is 2 per point.

Skull HPs is 3 per point.

No upper limit on HPs although weight will increase accordingly

Additional MR

Cosy: 1 per point, per leg. Both legs must match. Maximum for bipedal cyborgs without artificial spines and arms is 50.

Additional STR

Cost: 2 per point, per limb. All artificial limbs must match.

Hydraulic Leap

A system of powerful hydraulics can be installed in the bionic legs (must be at least 2), for use in leaping or jumping. These hydraulics are not suitable for use as attribute enhancers; they can only provide a simple powerful thrust used for leaping. When used as part of a leap attack they provide a damage bonus of +10 to physical attacks.

The system provides 10,000 ft-lbs of kinetic energy: To obtain the maximum possible height (straight upwards) divide this kinetic energy by the weight (in pounds) of your robot. The maximum horizontal distance possible is about twice the maximum height. Adds 28 lbs to weight of robot. Cost of Leaping System: 3

Jump Jet

A small set of 2 booster jets which allow the robot to jump x3 the cyborg's height in distance up and across. Cost: 3 +1 per additional x1 distance.

Retractable Wheels, Skis or Ice Skates

Wheels (effectively roller skates or blades) double the cyborg's MR, but only on smooth surfaces. Ice skates have similar effects and limitations.

Snowshoes prevent MR from being reduced in heavy snow. Skis increase MR in the snow (doubled on flat surfaces, at least trebled downhill) but reduces turning and stopping abilities. Each system costs 1.

Step 8. Additional LocomotionAerial Jet Thrusters

A jet propulsion system can be installed, found either in the legs or the lower back. With just a thought, the individual can hover or fly at a high speed. Unless the character also has the Internal Power Supply feature, the running time of the jet thrusters, between fuelling, is extremely short.

In order to operate the jet system, the character must have the Pilot Jet Pack skill. Maximum Speed: 192 kph. Engine: Liquid fuel supply or nuclear engine. Range: 192 kms if liquid fuel powered. Effectively unlimited with nuclear power supply except that the thrusters need cooling after 1280 kms. Cost: 3

Anti Grav System

This device creates a stabilized gravitic field which holds the robot suspended above any solid or liquid surface (up to 5 metres). Lateral movement is provided by a compact turbofan with a top speed of 100kph. Cost: 5.

Concealed Helicopter VTOL System

This is a flight propulsion system based on the helicopter. Rotor blades are folded in a hidden compartment that rise out and unfold when flight is required.

Suitable for any robot type. Basic System Cost: 4. Base Speed: 240 kph. HPs of System: 125, but only 75 is needed to disable it. Estimated mileage: 4 kms per litre.

Folding/Detachable Wings, Standard

These have a 10 metre wingspan and fold into 3m x 1m wide fins.

A pair of super light wings up to max weight limit of 250 lbs, not counting wings. Wing Hps: 75 each. Weight: 30 lb. Speed: 200 MPH. Cost: 3 + 1 per extra 20 MPH of speed.

Detachability Option Cost: 1

Retractability Option Cost: 1

Folding/Detachable Wings, Seraphim

These have a 10 metre wingspan and fold into 3m x 1m wide fins Seraphim Model:

A deluxe version of the above system with six wings. Has greater control (an additional +2 on all rolls), and goes an additional 50 MPH. Weight: 70 lb.

Weight Limit: 325 lb (not counting wings). Cost: 4

Folding/Detachable Wings, Limb

These have a 10 metre wingspan and fold into 3m x 1m wide fins. An option for the basic Winged Flight model.

These are small wings on the forearms and shin which are used for manoeuvring.

They add a bonus of +1 to all combat rolls while in flight if just the arms or just the legs are equipped. If both the arms and the legs are equipped, then they offer a +2 bonus. Cost: 2 for a pair of shin wings, +1 for a pair of forearm wings.

Detachability Option Cost: 1 per limb.

Retractability Option Cost: 1 per forearm

Folding Rotors

A small but powerful rotor system with contra-rotating blades (no tail rotor). Folds into a package 3 metres high standing along the spine. Rotor diameter is 5.5m. Initial MR is 0, maximum is 480. If flight jets are combined with rotors, maximum MR is half the lower + the higher value. Cost: 2, plus 1 per point of speed.

Hover Chassis

Cost: 4 + 2 per pod. A chassis with 2-4 ground-effect fan pods, altitude is 10 cm to 3 metres. Each pod has 100 HPs. Maximum MR is 440 and MR Costs 1 per point. Starting SPD is 0.

Hover Jet Backpack

This can be a detachable back-pack unit or built directly into a robot's back. Appropriate for small, human-sized humanoid or animal robots, exoskeletons and androids. Basic System Cost: 3.

Hover Jet System

A super sophisticated, twin engine system, with bottom and rear jet thrusters for V/STOL capabilities. This unique propulsion system offers ground and air capabilities automatically.

The V/STOL means the robot or robot vehicle can hover stationary above the ground, make vertical take-offs and landings (fly straight up and down), as well as short take-offs and landings in horizontal flight (straight-ahead). Suitable for outer space and underwater travel. The Base Base Speed: 160 kph.

Base Altitude: 152 metres. HPs of system: 100 points of damage will disable enough of the jets to reduce the system to jump jets, another 35 points

will render it totally useless. Estimated mileage: On a liquid fuel is 80 kms per one litre. Cost: 4

Liquid-Fuel Jets

Built into the character's back are a number of thruster nozzles that when engaged, function exactly like a jet pack; requires a bionic chest for anchoring and ideally a reinforced spine and shoulders. When not in use, the thrusters recess close to the character's back (or actually retract completely if he is wearing any kind of bionic body armour), and when activated, the jet nozzle ends rotate out and lock away from the body on prescribed angles to keep from doing any damage to the user.

The pack is driven by mental command, much the same way a bionic hand is controlled, but it does require fuel or a power pack to operate. Jet thrusters may also be built into the feet for more control +1 to dodge.

Power Supply: Liquid fuel jet packs have a flight endurance of one hour. Super-solar engine jet packs have a flight endurance of 24 hours before requiring a four hour recharge period. Micro-fusion jet packs have a five year endurance, during which time they can be used constantly.

Cost: 2 (liquid fuel), 3 (super-solar) or 5 (microfusion). Maximum speed: Mach 1. However, the base speed for a jet pack is 120 kph. Additional speed can be purchased at one kph per 1 cost.

Nuclear- Flight Jets

Only if the cyborg has a fusion plant can these be installed. They pass compressed air over the heat exchangers for reaction mass. Initial MR is 0, maximum is 660

(1 per point). Base Cost is 4. The jets must be allowed to cool for 1 hour after 3 hours of use or they will destroy themselves.

Pontoons, Treads and Wheels

Cost: 1 per pair

Types include:

Small (car size),

Large (airplane size, 20-30 ft).

Pontoons HPs - 75 each.

Tracked Chassis

A chassis resembling a miniature tractor or tank. Each of the two tracks has 5 HPs (maximum 40). Maximum MR 220, MR Costs 1 per point. Starting MR is 0.

Cost: 1

Treads

A solid all-terrain mode of transportation that can handle rough terrains and travel underwater along lake beds and such. Maximum Speed: 110 kph, increase by 20% when travelling on a good road, flat grassland or hard earth. Cost: 1

Underwater Propulsion

Similar to the jet thruster system, the bionic legs or lower back can have a propulsion system installed for underwater use. Maximum Speed: 80 kph. Engine: Electric battery supply or nuclear engine. Range: 240 kms if battery operated. The underwater propulsion system can run indefinitely with a nuclear power supply, the only factor restricting range is the oxygen supply of the pilot. Cost: 2

Wheeled Chassis

Cost: 2 + 1 per wheel. A chassis of a 3 to 6 wheeled all-terrain vehicle. Base HPs for wheels is 10 (maximum 200 each). Maximum MR is 352 and MR Costs only 1 per point. Starting MR is 0.

Step 8: Additional Features

360 Degree Rotating Segments

Head, shoulders, hands at wrist, and upper torso at waist, can rotate in a 360 degree circle. Cost: 1.

Absorption Defence

Absorbs all incoming energy and uses it to recharge weapons and equipment up to a maximum of 100 damage per round before shutting down. Cost: 6 per each different type of energy (electrical, solar, laser, fire, etc).

Additional Armour Class

Arm AC is 2 per point.

Chest/Rib AC is 5 per point (the system requires more complex articulation)

Exoskeleton AC is 5 per point.

Hand AC is 1 per point.

Leg AC is 3 per point.

Skull AC is 4 per point.

Bionic Skull, Chest and Exoskeleton AC must match. Obviously, if the character does not have one of these systems, he doesn't have to worry about it.

Maximum AC for any system is -10.

Additional HPs

Arm HPs is 1 per point.

Chest HPs is 2 per point.

Exoskeleton HPs is 2 per point.

Hand HPs is 1 per point.

Leg HPs is 1 per point.

Skull HPs is 2 per point.

No upper limit on HPs although weight will increase accordingly.

Air Temperature Reader

The skin precisely measures hot and cold temperatures emanating from objects or areas, provided the surface is not so hot as to bum the skin or sensor. In the case of extremely hot items, such as a cooking grill, stove top, engine,

campfire, etc., the temperature can be taken by placing the hand with the sensor near the heat source or item.

This can be extremely useful in telling, for example, if an engine has been recently used (if hot it has been, if warm not long ago and cold means not in hours). Therefore this sensor helps to tell how old a campfire may be, whether a weapon has been recently fired, or in locating a heat source, etc., as well as measure the air temperature around the character.

Range is limited to touch or about 20 centimetres from the heat subject.

Remember that touching something that is extremely hot will damage/burn even a cybernetic hand just as it would a normal flesh and blood hand. Cost: 2.

Antenna

Can include most audio, camera or sensor systems at the usual price, plus the cost of a reinforced antenna. Antenna Cost: 1 for a pair.

Atmospheric Shielding

Additional coating to the skin which enables the cyborg to survive reentry into an atmosphere. Includes retractable shields to protect any exposed flesh parts (including the head). Cost: 2.

Automated Skin Sealing

The automatic sealing system is comprised of two separate layers of resin under high pressure in the skin. When the layers are breached the substances expand and mix to form a very durable foam-like patch. Cost: 2.

Automatic Pilot

The automatic navigation system has the capability to plot and control travel to

any preprogrammed destination in the event the cyborg is rendered unconscious. Cost: 4.

Bio-Comp Self-Monitor

A nano-implant tied to a tiny computer system. It monitors, measures and transmits fundamental physiological information about the person it is implanted within. The data is typically displayed on a wristwatch or bracelet style monitor device, but can also be displayed on cybernetic or bionic eyes, or displayed and recorded on a computer screen, portable bio-scan or portable laboratory device via a finger or Headjack.

Data includes pulse rate, blood pressure, body temperature, blood sugar level, respiratory rate and difficulty breathing, and the presence of foreign elements in the bloodstream indicating the presence of drugs or poison. Cost: 1

Bomb Detector

The unit sniffs out the vapour of a bomb - an invisible, undetectable vapour that's continuously emitted from explosives. If suspicious gasses are present in the air, an alarm light will instantly illuminate.

But only when the vapour is truly explosive, will the light be joined by an audible tone. Only 2 minutes after the alarm is received, the unit is warmed up and ready to operate. A single switch then activates the system and in as little as one second, an explosive can be located. Cost 2.

Bug Detector

Detects any listening devices within a 20 metre radius. Cost 1.

Canards

These are 1 metre fins attached to the arms and legs. They increase airborne manoeuvrability (+2 piloting rolls) and reduce turn time. It takes 2 actions to attach each fin (of four). Cost: 1.

Chameleon Device

Follows the contours of the body allowing the character to blend in with the environment as per power (not true invisibility). There is a -60% penalty if trying to spot this person. Cost: 6.

Chipjack

This device allows a bionic character to perform skills that he or she does not know. A character can have only one chipjack that holds 10 datachips. The datachips are interchangeable which means the character may have more than 10 datachips but never more than 10 datachips operating at one time.

It takes one melee to change a datachip and 1 minute of processing time to activate the datachip. The chipjack is usually implanted on the inner arm just above the wrist or side of the head. Cost: 6 for chipjack. Datachip Cost: 1 for each rating of the skill. eg. a 2 rating costs 2 and gives a +2 to use that skill.

Clock Calendar

A device that can be implanted almost anywhere on the body. It continuously keeps track of the exact time, down to a 100th of a second, as well as the calendar date. Data can be transmitted as an audio report through an ear implant or to a wristwatch-like receiver, cybernetic eye, and/or computer screen, but the latter requires a Fingerjack or Headjack. Cost: 1

Cosmetic Enhancement

Skin, hair, eyes, nails, teeth, etc., all of which can pass as human under visual inspection. Note: genitalia look human but are purely decorative. Entire body
Costs 2.

Cyber-Drone

This is an implant and program similar to the cyberware network but enables the user not only to eavesdrop and steal data, but to seize control of the cyberware or bionics. The Cyborg loses complete contact with his cybernetic/bionic systems (which may blind some characters) and can only respond with his mind and natural body. Cost: 6

Cyberlink

A cybernetic interfacing system (Fingerjack, Headjack, etc.) that allows an individual to link to computers and computerized machines to send and receive digital information. For example, being cyberlinked to a vehicle means the cyborg pilot instantly knows the speed, velocity and direction the vehicle is travelling, engine performance, system failures, any stress on or damage to the vehicle (engine, wheels/tires, body, weapon systems, etc.), and anything else monitored, managed or controlled by an onboard computer and sensors.

He can also access and control many of the vehicle's systems, like steering, accelerator, brake, engine, thermostat, radar, radio/communications, special optics, any video camera systems, HUD, weapons and other features. The big advantages from this link are an instantaneous feed of information, as close to absolute control over the vehicle as is humanly possible, which, in turn, enables the driver to respond more quickly and to use equipment or

weapons built into the vehicle with a thought - no need to glance away or use the hands.

Thus, the driver can keep his hands on the wheel and eyes on the road while using the interface to access, open and use computerized systems, fire weapons without touching the trigger, punching a button, or using a computer keyboard, etc. Cost: 3

Cybernetic Cellular Phone

This is a standard cellular phone implanted in the jaw bone. The character can make and receive telephone calls anywhere service is available. Conversations can be held and the phone dialled without notice to observers. Note that sensitive radio/electronic detectors will notice the signal. This boosts the range of the Cyber-Modem to the range of the phone. Cost: 1

Directional Spray

Effective range 20 metres. Must be combined with chemical supply (see above by standing in at least knee-deep water it can be refilled or pumped directly). This can be used as a fire hose, or to spray gas, or for nastier tricks.
Cost: 2

Drone Artificial Intelligence

Extending the idea of the remote probe, one can envision a network of robots, with very limited individual intelligence, controlled by one master robot. For example, a team of robots acting as security guards don't necessarily need independent intelligence. With video and audio transmission these guard can communicate with the central system when they need advising.

If a guard were to detect something questionable, it would send a transmission to the master intelligence who would decide a course of action, assign a target, etc. A limited intelligence system, allowing the guard to "patrol" and fight when needed, does seem necessary, but it should be considerably simpler (and cheaper) than a standard Artificial Intelligence.

Further, if these "drones" are just one member of a larger team, they don't seem to require onboard power plants. They could run off of battery power and recharge in staggered shifts. With the advent of quantum effect batteries these robots could take "shifts" for nearly a full day before running out of power and be back on the job after only a few hours of recharging.

Drones controlled by a central intelligence seem to be a very cost effective alternative to the standard rules of robot construction. For simple tasks like security it seems that a Standard Artificial Intelligence is appropriate. The central intelligence is developed as usual, but the remote controlled models could be relatively cheap and interchangeable.

Combat: 4 attacks per melee; 10 Thac0 w/ built in weapons; +3 parry/dodge.

The Drone has speech and literacy limited to simple interaction but no programmed personality. It understands spatial orientation, very basic knowledge of laws of physics (objects fall down, etc). Is able to patrol an assigned area, watching for anomalies and able to attack assigned targets. It must communicate with the controlling intelligence when the situation is outside

of the current mode. It can take over a large share of combat functions for untrained pilots. Cost: 6.

ECM

Electronic Counter Measures. It causes detonation of all activated missiles in a 1km range which have been locked onto you. Cost: 3

ECM Decoy Probe

This probe includes an array of transmitters which are calibrated to broadcast an electromagnetic signature identical to yours. In effect this probe makes it appear as if two identical robots are in the area. Cost: 2

Emergency Beacon

GPS emergency SOS repeater lasting 1 month. It can be detached and carried in your pocket. Cost: 1

EMP Ball

A small spherical object which interrupts all electrical synapses within any electrical equipment it is attached to (has magnetic clamp) effectively destroying it. Cost: 5

EMP Blaster

As above but treated as Electro Magnetic Pulse burst with range of 45metres destroying any unhardened electrical equipment and temporarily rendering inoperative any hardened equipment. Cost: 6

Forcefield

Generates up to 300 HPS in the form of a small 30cm diameter shield which can be generated anywhere over the body within 30cms of the device. The HPS is continuously regenerating for up to 4 hours before requiring recharging. Cost: 6

Gyro-Compass

A device that can be implanted almost anywhere on the body. It enables the user to always locate North and the other directions, as well as up and down. Ideal for pilots of aircraft and power armour as well as underwater operations. Data can be transmitted as an audio report through an ear implant or to a wristwatch-like receiver, cybernetic eye, and/ or computer screen, but the latter requires a Fingerjack or Headjack. Cost: 1

Hardened Circuits

The ship's electrical and computer circuits have been hardened to withstand the effects of EMPs. Cost: 3.

Heat Sensor

Only the Neural Interface Hand can be used for direct sensing, all others will have an audio buzzing signal. The heat sensor signals a dangerous amount of heat automatically. It's also possible for the character to "scan" objects and areas up to 15 metres away. Cost: 2.

Human Simulation

Provides all the benefits of Cosmetic Enhancement, plus an artificial circulatory system with imitation blood vessels, thermal network for warm skin, and sweat and tear glands. Improved cosmetic appearance. Note: genitalia function sexually but not reproductively. Cost: 2 for whole body.

Hydraulic System

A system of powerful hydraulics are installed in the arms, shoulders, and back, enabling it to carry 300 times its total STR attribute and lift 500 times its STR. The system is not suitable for uses other than raw heavy lifting; in fact, if a

character lifts a light object (less than carry 200x or lift 300x) using the system he will lose control of his strength and either overbalance or toss the object into the air. Cost of Lifting System: 3

Image Inducer

Creates 3D holographic images of self or another prerecorded image which can be broadcast anywhere within 10 metres of the device. Up to 10 images. Cost: 6

Inhibitor

100 metres with 10 metre radius, temporarily prevents the meta abilities of any within its path from functioning including psionic based powers. Cost: 6

Intangitator

Makes the air full of electricity though while at a non lethal level does agitate the molecules within the area sufficiently to force anyone intangible to turn solid. A portable version is also available but requires a power source. Cost: 6

Internal Bio-Monitor

Comes with optional external readout under a brightly marked panel. Cost 1.

Internal Calculator

A tiny computerized calculator usually connected to a Headjack, ear implant or artificial eye. The computer responds to spoken, radio or computer transmitted mathematical equations. The answer is transmitted through the Headjack, ear or eye implant. Cost: 1

Internal Container

Part of the cyborg's internal space is a concealed compartment. Cost is about 1 for every 25 cubic centimetres of space no more than 2000 cc's is possible in a normal-size cyborg.

Language Translator

A miniaturized language translator placed right inside the body to facilitate easy communication with the multitude of nonhuman life forms in the universe. Characters who already have a Headjack or some other type of audio ear implant can have the cyber-translator implant installed at half cost because it is integrated into that pre-existing system. Starts with 10 different languages to begin with, and eight additional languages can be added. Level of accuracy is 98.7%. Cost 3.

Laser-Reflective

Double the cost of limbs, ribcage, torso, skull. Lasers do half damage. This cannot be combined with low radar return construction.

Locking Joints

Joints can be equipped with high tensile metal mechanisms, allowing a robot to lock that joint in place. Moving the limb will require a STR capable of overpowering the bionic's STR by at least 20 attribute points. If a joint is overpowered it causes damage to the mechanism. It is bent out of place, causing the joint to stiffen. The cyborg will be incapable of easily moving that joint until it is fixed. Combat penalties should be assessed on a situational basis by the GM. Cost required for locking joints: 1 each.

Magnetic Shield

Prevents effects of radiation, vacuum, micro debris, etc from entering or affecting the ship. Cost: 5

Metal Detector

Usually built into a prosthetic hand or forearm. By waving the arm over an area or a person's body, it will detect metal

fragments, coins, concealed weapons, and bionics. This device does have a limited range of two feet and items covered in synthetic or real flesh only. Cost: 1

Motion Detector

Usually built into a sensor hand or prosthetic with hair-like sensor wires that are actually tiny motion detector sensors. However, a motion detection sensor system may be implanted in the arm, leg or head with sensor wires hidden among the human hair.

Provided the sensor wires are not covered (the arm or leg with the detector must be bare), the system will work to measure noticeable movement near the character.

A motion detector is especially useful in the dark because the speeding object must usually be within 153 metres to create a detectable air current. Likewise, the motion sensor will detect the movement of somebody/thing moving near by, within 12 metres, but only if the sensor user is motionless or barely moving itself.

The sensor can also detect sudden changes in air current and pressure caused by somebody opening a door or window, and can estimate speed of travel when inside an open-air (or open window) vehicle. Cost: 2 for an implant, half that if built into a prosthetic.

Oversized Body Part

Every size doubling trebles the price, i.e. New Cost = Old Cost x 1.5 x (New Size / Old Size).

Pain Editor

This cybernetic implant causes the character to no longer feel pain from wounds. The character is invulnerable to shock from damage, pain checks, and torture involving pain. Cost: 1

Plug-in Hand-Held Monitor

A simple hand-held view screen that can plug into any of the 'Borg's jacks to get a complete readout of the bionic systems (to see what's working and what's not or to get Bio-Comp stats, etc.). In the alternative, the monitor can be used to read data collected by the cyborg's sensors, the person with the monitor sees everything (data stream) the cyborg sees. Cost: 1 per unit.

Power Analyzer

Scans any one lifeform within 9 metres and detects what metapowers that person has. It doesn't work on supernatural abilities or magic. Cost: 6

Power Mimicator

Duplicates one Physical or Energy based power (not Psi) of any meta within its 30 metre radius. The power is lost once the meta leaves the area. Cost: 6.

Radar

Radar systems use both radio waves and laser light to send emissions out from the ship where they will bounce off of targets. The bounced waves become signals that the sensor can track with a high degree of precision. Detect, identify and track up to 100 targets with a range of 100 kilometres. Cost: 3

Radar Sensor

A warning is transmitted whenever the sensor detects that it is being scanned by radar. Cost: 1

Radiation Sensor

Detects and measures the amounts of harmful types of radiation and warns its owner. Includes nuclear, atomic, and microwave radiation. Data may be transmitted to an ear implant, cybernetic eye or wristwatch style monitor. Most usually sound an audio warning as well as a visual transmission display, and some even tick like a Geiger counter, getting louder and faster as the radiation level increases. Cost: 1

Radiation Shielding

Completely stops harmful radiation of all kinds and levels. Cost: 1.

Radio Encrypter

This encryption product ensures your e-mail, voice, fax, and data communications are secure. Cost: 1

Reflective Surface

Reduce damage from energy weapons by 10%, it is simply coated over any cybernetic part. Cost: 2.

Searchlight

6,000,000 Candlepower, Night Vision and Video Compatible. The Searchlight can be remotely connected and operated at distances up to 100' from the battery or other appropriate sources. Detection of the light source is approximately fifteen degrees off the centre beam axis when viewed from a distance of 500' or more. It can be fixed to a body location and given a swivel rotation. Cost 2.

Secret Compartments

Small secret compartments can be built into the cybord to hold tools, supplies, weapons and secrets. The number of compartments depends on the size of the cyborg and size of the compartment. The most likely locations on a humanoid

form is in the thigh, chest and back (or inside if a pilot is required). Cost: 1 each.

Self Repair System

This is a version of the Healing Factor system for use with robots. The system is divided into a master control system (there may be 2 backups), and a dispersal pod (there may be 5 backups). Each pod restores 1 HPS point per minute. Cost: 6 for the control unit, 4 for each dispersal unit.

Sensor Jamming

Prevents enemy sensors and targeting systems from detecting you. The drawback being they might notice that their sensors are being jammed before you can attack. Range of 100 metres. Cost: 2

Smartgun Link

This device makes any gun, be it a pistol, sub-machine gun, or rifle, amazingly accurate. A small targeting computer is implanted inside the character's body.

The smartgun link allows a character to see where the gun is pointing through a special scope connected to a bionic eye via a universal headjack (the bionic must have a universal headjack to use the smartgun link). The smart gun conversion is quite expensive and each gun must be paid for separately.

The conversion consists of removing the trigger mechanism (so the gun is thought activated, a special jack plug (for the universal headjack), and mounting a special scope that links to a bionic eye. The bionic may use any optic systems available to him while using a smart gun.

The bionic will see a crosshair that shows where the smartgun is aimed.

Bonuses: The smartgun link provides a +6 to Thac0 with all smartguns in addition to any bonuses to strike. Cost: 4 for the implant. Conversion Cost (for each gun): 2

Sonar

Like radar but applies to underwater. Detect, identify and track up to 100 targets with a range of 100 kilometres. Cost: 2

Sound Recorder

Advanced sound recording equipment which can be hooked up to the audio system. May use either usb stick or CD. Cost: 1.

Spectrum Beam

Emits infrared and ultraviolet light rays which can damage sight sensors and reveal any similar beams or heat prints in the area. Cost: 1

Stealth Cloak

Makes the user invisible to radar and all forms of electronic tracking devices (but not metaabilities or magic). Cost: 6

Submersible

The cyborg can completely seal all joints and intakes so as to be able to perform underwater. This includes a pressurized system and retractable covers to protect any exposed flesh. Maximum depth of 1 km with a speed of 10 knots. 1 hour oxygen supply. Cost: 2 + 2 to double depth and speed. +1 per additional hour of oxygen.

Telephone Jack

Can "jack" into telephone lines to use them for free or to eavesdrop on the conversations of others. To do the latter, the eavesdropper must tap into the specific line. A surprising number of local telephone and local internet (regional) services are available at high-tech cities and at least half of the 'Burbs. Cost 1.

Telescopic Limbs

Extension to +2m. If both legs are of telescoping type, jump distances are trebled. Melee combat using a telescoping limb is +2 Thac0, +1 parry, and base damage is doubled. Cost: 1 per arm or leg.

Tentacle or Tail

Highly flexible limbs with a 2 metre reach. They can be placed almost anywhere but must follow extra limb limits set out above. Cost: 2 for a single pseudopod. Same combat bonuses as additional arms.

TMDRT System

Tactical, mobile, deployable radio and television broadcast system. Able to produce, broadcast, record and monitor commercial bands from fixed locations using broadband, directional and omni directional, antenna systems. Also has an electronic news gathering ability to produce, broadcast, record and monitor commercial quality programming using satellite uplink/downlink. Cost: 3.

Tractor Beam

A beam of force that can attract or repulse any physical objects within 30 metres. Up to half a ton can be attracted or repulsed. Its also possible to use the beam as a climbing tool (+2 bonus). Disarming an opponent with the beam is

also possible; add a +2 bonus at levels two and four, +1 more at levels seven, and ten. Halve the bonus if the character is attempting to snatch a weapon away and into his own hand. The character can fire a repulsion blast that requires a victim to dodge or suffer knockdown and take 8D4 damage. Finally it can also be used as a jump booster for a total of normal distance x2. Cost: 6

Transforming Steel

See the Appendix at the end of the classes section.

Ultrasonic Audio

Permits the detection of very high-frequency sounds such as stealthy footsteps, some machinery, moving clothes and equipment, and ultrasonic transmissions up to 100m distant. Cost 2.

Ultra Transmission

Can choose to speak and be audible only to those with ultrasonic audio sensors, or dogs, to a range of 100m. Cost 2.

Van Allen Bonds

This device changes all the radiation molecules within a 20 metre radius into separate and less harmful Radium, Actinium, Thorium and Protactinium molecules which then disperse into the atmosphere. Cost: 6.

Water Flotation System

This system of air-filled cushions allows the robot deploying them to maintain a neutral buoyancy if it is forced to land in water. The cushions are filled either from compressed air bottles (in emergencies), or using the robot's life support system to provide the air. Cost: 1.

Wi-fi

Satellite internet link. Cost 1.

Winch/Crane

This is a winching mechanism fitted either externally or retractable and designed to lift or haul loads of up to 1 ton. Cost: 1 per ton.

Wired Reflexes

This cybernetic implant can only be added to normal arms and legs, not bionic ones. It adds +6 to DEX. Cost: 3

10. Bionic weaponsChemical Supply

Simply a fluid tank and pump. Some uses: dripping poison onto retractable claws, supplying drugs for a retractable hypodermic, storing water for use by a high-pressure spray, possibly combined with a steam system. A chemical supply can hold up to 20 "uses" of chemical, and may carry more than one kind (up to 4). Cost: 2

Claw Hand

Designed exclusively as a weapon. The Claw Hand can not be used for normal gripping, touching or tool using. It comes as a single blade which does 2D6 damage per attack. Alternate versions can be fitted as blunt weapons (a solid metal fist/hand) that does D8 plus PS bonus damage. Or as a metal hand with wicked blades for fingers doing 2D6 damage per attack. The hand is very durable, with an AC of 12, an HPs of 60. Cost: 2

Cutting Jaws

HPS edged jaws with high-powered mechanical muscles. Vastly more effective than bolt-cutters. Damage is D4. The bite of a cyborg with this weapon can sever chains, and given time even gnaw through axles, etc. Cost: 2

Electrical Discharge

Usually fired from one or more fingers.

Type I: D4-4D4, 20 metre range.

Type II: D6-4D6, 10 metre range.

Type III: D8-4D8, 10 metre range.

Type IV: D10-4D10, 5 metre range.

Cost: 3 each

Energy Blades

This weapon can be built-in or hand-held and can resemble an Energy Sword, Axe, Flail, etc. Hand-held requires a power source and can run for only ten minutes before needing a recharge.

Built-in energy weapons draw their power from the unit itself. Number of Attacks: equal to hand to hand. Special: +2 to parry in hand to hand situations and the character can attempt to parry energy blasts but with no bonus modifiers. Damage: 2D6 plus STR bonuses. Cost: 3

Explosive Projectiles

These mini bombs can be fired from the wrist, arm or shoulders. The launcher can hold up to 12. Each of the bombs can have their damage adjusted to do from between D6 to 6D6 with a 12 metre radius. Cost: 2 with 2 per bomb.

Eye-Grenade

The idea here is to pop out the eyeball and throw it. Or, if the situation is really desperate, it can be used for a 100% reliable suicide device just leave it in when it's set off. Does 4D6 damage to target and 2D6 damage to everyone within 4 metres of the detonation point. Of course, the eyeball is destroyed in any detonation. Cost: 2

Flamethrower

A small unit with a retractable nozzle and hose, usually housed in the hip or back. The flame thrower can also be built to fire from the hand or mouth.

Range: 5 metres. Damage: 5D10, targets burn for 6 melees, taking like damage every round. Plus a 60% chance of setting combustibles ablaze. Capacity: 40. Cost: 3.

Frigex Cannon

Type I: Special cannon which freezes the air around a victim encasing them completely with the same effects as per the Ice power with range of 10 metres.

Cost: 6.

Type II: Same as above but fires Ice shards instead which do 3D10 each, up to 1 shot per melee. Cost: 5.

Garrote Wrist Wire

A thin, strong wire is hidden inside a prosthetic wrist junction that can be pulled out and used to strangle an opponent. Cost: 1

Grenade Finger Joint

One joint of the artificial finger can be detached and thrown. Works as a tiny grenade that does 3D6 damage to the target and 2D6 damage to everyone within 4 metres of the detonation. Cost: 2 each.

High-Speed Rotating Wrist

When combined with fingertip or climbing claws, this doubles their damage. Cost: 1

Horns, Large

A pair of large, bull or steer type horns. +2D4 damage to head butts. Cost: 2.

Horns, Large Ram's

A large set of thick, curled horns. +2D6 damage to head butts. Cost: 2

Horns, Small

A pair of tiny to small Devil's or goat's horns. Usually for cosmetic effect rather

than as a weapon. Damage Bonus: +1 damage to head butts. Cost: 1

Horn, Unicorn

This is one large horn (any style) usually in the centre of the forehead or top of the head. Damage Bonus: +D6 damage to head butts. Cost: 2.

Internal Gun

Internal guns can be placed anywhere, but if they are in the forearm or head they gain +1 Thac0. Head-guns are limited to pistol size weapons or lasers (lasers can be placed in the torso and connected to the actual aperture by a flexible optic cable, and hence can be up to rifle size). Other internal guns are limited to pistols, SMGs, automatic carbines or weapons of similar size. Ammunition is normally 1 clip but a large ammunition reserve (equivalent to 10 clips) in the torso can be installed. The internal gun costs the price of the weapon itself plus 2 creation points.

Mini Gatling Gun

This small, six-barrelled machinegun can be mounted on the forearm, shoulder, hip, or head. It fires in bursts only and uses armour piercing ammunition. Range: 100 metres. Rate of Fire: Standard Machinegun automatic fire, but can not fire single shots. Damage: 6D10+6. Ammo Capacity: 100 round clip (30% ammunition), 500 round internal belt (100% ammunition), or 1000 round drum fed (300% ammunition). Cost: 3. Belt feed adds +1 and drum feed adds +2.

Mini-Laser

A micro-sized version of combat lasers. This weapon has a maximum range of 25 metres and does 3D6 damage per

blast. Unfortunately it can only hold 8 charges. Recharging time is 2 hours using standard electrical outlets. Cost: 2

Missile Launcher

The launcher can be manufactured to hold anywhere between 1- 24 missiles. Cost: 3 per missile pod.

Monofilament Whip

A retracting reel of monomolecular wire tipped with a lead weight and used like a ball-and-chain. Does D6x10 HPS and victims must save or suffer a crosscut. Cost: 2

Needle Projector

Can be used with any Hand Replacement. Designed to be built-in to either a finger, thumb, palm, or along the back of the hand. Each is a one-shot weapon coated with either anesthetic or poison. Anaesthetics usually take D4 melees to knock-out an opponent (victims get to save vs. non-lethal poison). Poisons generally inflict 3D6 damage plus D6 more damage for 2D4 melees (victims save vs. poison). Range is 10 metres. The needle does no hit point damage, the victim is effected on by the poison or drug. Cost: 1.

Neural Knuckles

If it hits exposed flesh, the victim must save vs. stun or fall unconscious for 2D4 rounds. Cost: 2.

Plasma Beam

This beam weapon does D100 over a 200 metre range. Cost: 10

Pneumatic Punch Gun

Installed in hand and lower forearm, a steel punch driven by compressed air and able to penetrate armour. Includes a

punch trigger. +D6 x 10 HPs is added to punch damage. Cost: 4.

Pneumatic Catapult

This device is usually installed in the forearm and may be used to throw a spike or grappling hook (range 150 metres). If used as a weapon, spikes do 3D6. Found stones can be muzzle loaded, doing 2D6 (but range is poor, 50 metres). Cost: 2. An adaptor, which must be attached externally, turns this into a grenade launcher which hurls standard hand grenades up to 100 metres. Cost: +2.

Retractable Finger Blade

5 centimetres long, D4 damage (standard 4 blades per hand, so a hand with 4 blades would do 4D4). Cost: 1 each.

Retractable Forearm Blade

30 centimetres long, 3D6 damage. Cost: 2 each.

Retractable Hypodermic

Does no damage, but injects the selected chemical or drug into the body of the victim. Cost: 1 +1 for the chemical supply.

Sonic Disruptor

Installed anywhere on the body, and produces a very painful sound as well as physical damage. Characters must save vs stun or be unable to hear properly for D10 rounds.

Type I: 2D6, 90 metres, Cost: 2.

Type II: 3D6, 120 metres, Cost: 3.

Type III: 4D6, 150 metres, Cost: 4.

Type IV: 3D10, 200 metres, Cost: 5.

Spike

This one-shot weapon is designed for low range (8 metres maximum) but

high damage (D10) attacks. Spring operated, it can be reloaded in one melee action. Cost: 2

Stun System

When activated the entire body of the cyborg becomes a conductive surface which delivers an electric charge at a touch. Does D6 damage and a save vs. stun is required to avoid being stunned for (30 - CON score) rounds (minimum 1 round). Cost: 4.

Weapon Arm

Weapon Arms: A robot, not an exoskeleton, can forego the hand on one arm in favor of a larger weapon system that replaces the entire forearm. There are three varieties of weapon arms, laser, ion, and gun arms. Each one is basically a pair of powerful weapons of their type. Characters with only one hand are - 1 on all skills. Just replace one arm with one of the weapons in this section. Cost: the cost of the weapon.

Step 4: Careers

The character can take any career desired.

Unusual Characteristics

In this characters instance unusual characteristics would refer to highly visible cybernetic replacements which cant be easily hidden.

Colour

Roll on this table several times; once for the skin of each limb replaced, and again for any artificial eyes.

- 01-10 Chrome Red
- 11-20 Chrome Blue
- 21-30 Chrome Yellow
- 31-40 Chrome Green
- 41-50 Gold
- 51-60 Silver

- 61-70 Bronze
- 71-80 White
- 81-90 Black
- 91-00 Transparent

Artificial Eyes

What type of eyes does the character have?

- 01-09 Very small; -2 to hit eyes if targeted by enemies.
- 10-18 Small; -1 to hit eyes if targeted by enemies.
- 19-27 Completely normal.
- 28-36 Large; +10% greater sight range.
- 37-45 Very Large; +20% greater sight range.
- 46-54 Oval shape; 180 degree vision.
- 55-63 Glowing; +1 to intimidate others.
- 64-72 Reptilian; underwater nightvision equal to half normal range.
- 73-81 Fish; underwater nightvision identical to normal sight range.
- 82-90 Cat; nightvision equal to half normal range.
- 91-00 Insect; 360 degree vision.

Size

How big is the character?

- 01-08 1ft +D10 inches
- 09-16 2ft +D10 inches
- 17-24 3ft +D10 inches
- 25-30 4ft +D10 inches
- 31-44 5ft +D10 inches
- 45-52 6ft +D10 inches
- 53-60 7ft +D10 inches
- 61-68 8ft +D10 inches
- 69-76 9ft +D10 inches
- 77-84 10ft +D10 inches
- 85-92 11ft +D10 inches
- 93-00 12ft +D10 inches

The Organization behind the evolution

Determine who paid for the character's training;

- 01-20 Choose a non profit corporation. eg. Greenpeace.
 21-40 Choose a private corporation. eg. Enron.
 41-55 Researcher and his family who work from home.
 56-70 Government department. Choose a country and agency.
 71-85 Choose a superhero group.
 86-00 Choose a supervillain group.

Relationship with Organization; is the character still with his sponsor and how do they feel about each other?

- 01-08 Still with sponsor and very well treated. Receives favours and a high wage from them of D10 x100 dollars per week.
 09-16 Still with sponsor and well treated. Receives a moderate wage from them of D6 x100 dollars per week.
 17-24 Still with sponsor and dissatisfied. Treated with disdain by them and receives a minor wage from them of D10 x20 dollars per week.
 25-32 Still with sponsor and treated like a slave. No wage and is constantly watched. Escape will take some planning.
 33-44 Sponsor closed down and dumped the character in the wild.
 45-52 Sponsor still exists but has moved onto other experiments or projects. Dumped the character in the wild with all ties broken.
 53-60 Left sponsor on very good terms. May receive favours and freelance work from them.
 61-68 Left sponsor on good terms. May receive freelance work from them.
 69-76 Left sponsor after fight and is no longer welcome.

- 77-84 Left sponsor after a major fight and some injuries. Hunted by them at Difficult level. Want him recaptured.
 85-92 Left sponsor after a major battle and one or more deaths. Hunted by them at Severe level. Want him recaptured.
 93-00 Left sponsor after destroying the facility he was kept at with multiple deaths resulting. Hunted by them at Extreme level unless the GM decides the organization has suffered too greatly financially, in which case they may only be able to afford to hunt him at Severe or even Difficult level. Want him dead.

Metachanneller

By means of cybernetic brain implants candidates can have portions of their brain stimulated, reproducing certain meta powers. In the field operatives can radio call for powers for them to channel. But they can only use one at a time. These are activated by satellite relay, transmitted to them from a central control centre. In effect remote control powers..

Step 1: Attributes

Roll up attributes as normal. HPs are CON +8, +8 per level.

Step 2: Skills

Prior to becoming a Channeller the character would have led a normal life with normal skills. Determine them first then choose a new area of training from the list below. All the skills listed in each category are gained free;

Infiltration - Bluff, Bribe, Concealment, Disguise, Gather Info and Stealth

Medic - Paramedic, Concentration, Knowledge Alternative Medicine, Knowledge Drugs, Notice and Observation

Recon - Set/Remove Traps, Alertness, Camouflage, Concealment, Gather Info and Stealth

Tech - Armourer, Technical Auto/Bike/Truck Mechanics, Engineer Electrical, Engineer Mechanical, Engineer Computer, and Engineer Weapons

Step 3: Abilities

The brain implant includes a radio transmitter and receiver with a satellite link. If the link is lost agents can still communicate so long as they remain within 1km of each other. Another

consequence of a broken link is that the character will be stuck in his current Mode and unable to switch powers until contact is re-established. Below are all the different modes available;

Airborne

This involves a form of non winged antigravity flight with a top speed of 60kph, +5 per level.

Arc

This bestows several abilities:

- 1) Electrical Discharge; 2D6 +D6 per level, over 15 metres +15 per level.
- 2) Glow with up to 100 watts of light from the hands or up to 1000 watts of light if using whole body. If using the whole body then enemies are -2 to hit per 100 wattage used.
- 3) Can generate a brilliant flash of light to blind all people within a 3 metre radius. The blindness lasts for D4 rounds and causes a -6 to thaco and AC for another D4 rounds once sight has been recovered. Those within line of sight outside of the 3 metre radius suffer -3 to thaco and AC for a single round.

Atlas

Strength is doubled. All the bonuses that go with it are increased correspondingly. The character is also totally immune to fatigue while this is active.

Evac

This is one of the emergency powers. The character is instantly teleported back to home base.

Ghost

The character and an additional 9kgs per level can be rendered unsolid. He is only vulnerable to mind attacks and electricity (½ damage but forces character to turn solid).

Lazarus

This is one of the emergency powers. It is used to boost the character's natural healing ability to phenomenal rates. It instantly cleanses the body of any poisons and drugs. It also speeds up recovery giving an instant 10 HPs and an additional 5 HPs per 10 minutes. Broken bones heal x10 faster.

Mercury

The character can run at 100kph +10 per level. +1 Initiative at level 1 and every second level thereafter.

Rock

The character's bones become nearly unbreakable and his skin becomes cut resistant. He is immune to cold, fire, heat, microwave beams, electricity, bullets, falls and normal punches.

Shield

This is a forcefield which emanates from the character's arms and is akin to the size of a large buckler. It does not fully encompass the body. Its HPs is equal to WIS x100 (+1 per level) and replenishes at a rate of WIS x10 HPs (+1 per level) per minute of non use.

Stealth

The character can blend into his surroundings and become 100% undetectable if stand still, 75% if move up to 60cms per round, 50% if 180cms per round, 25% if ½mtr per round and 0% if move any faster.

Further he can mask his body heat to be equal with those of his surroundings, thus becoming invisible to thermal vision and heat sensing devices. External body temperature can be varied (plus or minus) by 50C degrees at level one plus 10C degree per level of experience.

His natural odour is almost imperceptible, causing a -30% to attempts to track him by smell alone (or require a difficult perception roll). Animals (most, anyway) will not recognize the character as a human or as a predator. Deer will graze and birds will continue to chirp in the character's presence.

The same bio aura also makes him invisible to all cameras, electronic sensors, artificial optics, robots, etc... This power does not affect normal sight, unless the viewer is relying on an electronic means of perception.

Finally the character can see heat images and traces the same way as thermo optic equipment. This is equal to normal vision range and can see invisible lifeforms by their heat.

Stun

Can project a stun blast from either arm over 15 metres +15 per level. The victim must save vs. psi or be knocked out for 1 round per WIS of the character.

Sunburst

This confers 2 abilities:

- 1) Turn hands into flamethrowers; 2D6 +D6 per level, over 9 metres +4.5 per level. Anything combustible instantly catches alight.
- 2) Super heat hands to melt objects; 500C per level touch, 30cm radius +10cm per level, generate at rate of 500C per round per level .

Voyeur

This confers several abilities:

- 1) Heightened Hearing; of 50 metre radius +5 per level. At 25% of radius hear as low as 1 decibel, at 50% of radius 10 decibels, at 75% 20 decibels

and at 100% cant hear below 39 decibels. +6 Initiative, +1 AC.

- 2) Telescopic Vision; x2 normal range, this doubles every level. +3 to thaco.
- 3) Microscopic Vision; this power allows the character to see small objects at x10 enhancement, this doubles every level.
- 4) Nightsight; equal to normal vision.

Step 4: Career

Determine what organization is behind the Channel project. This is who he works for;

- 01-40 Create a private organization.
 41-90 Government department. Choose a country and agency.
 91-00 Choose a superhero group.

Step 5: Disadvantages

- 1) The character is dependant on the organization for the continued operation of his powers. If they shut down he shuts down. +20 points.
- 2) The character is watched by his organization at +20 points. No privacy whatsoever.

Nanotech Warrior

Nanites or Nanotechnology are tiny micro machines which can be used to enhance humans without altering their genetic code or other obvious signs of tampering, except during a blood scan, or depending on the implants used, a medical scan.

Nanotech implants mostly consist of billions of nanites spread throughout the recipient's body that can alter some body functions, while other implants are permanent changes to the recipient's body that are caused and maintained by nanites.

Nanites tap the recipient's bioelectrical energy, thus some of these implants cause fatigue damage. Nanites also need an amazing nanocomputer and a modified amazing reflex – wiring, to organise their activities, and a nanite factory, to construct new nanites. This experimental technology is very expensive.

Step 1: Attributes

As a side effect of the implants the body becomes tougher. Gain +2 to STR, DEX and CON. +4 to MR and 50 HPs.

Step 2: Skills

Select skills as normal.

Step 3: Abilities

The character gains the following free;
Nanite Factory - This small facility includes the nanocomputer which coordinates all the nanites and constantly produces new nanites to replace any lost. The nanites are composed of a propulsion engine, a communication receiver, a cell membrane sensor and manipulator, a forward motion sensor,

logic circuits arranged and an emergency dissolve system.

The character gains 50 points to spend on any of the abilities below.

Adrenalin Booster

Cost: 5

These Nanites can trigger short bursts of energy: For the given number of rounds the user gains the given bonus to all skill checks of Athletics, Melee Weapons, Unarmed Attack, Acrobatics and Movement, also melee and unarmed attacks are increased by the given amount. Gain +1 STR, DEX and CON and +2 MR per level for 1 round per CON. The booster cannot be activated again for an amount of minutes equal to how many rounds it was used.

Anti-Ageing Implant

Cost: 10

The Nanites map the body and all the cells and then try to maintain the body by killing tumour cells, executing gene therapies, repairing slightly damaged organs and destroying all possibly toxic waste products (e.g. free radicals). They also mimic Telomerase, the enzyme, that deactivates the genetic clock of the cells, though they have to be careful, because cells might grow without control, if completely immortal (see tumour cells). This Implant can extend the users remaining life span by the given percentage. 10 points for +25% years, 20 points for +50% years, and 30 points for +75% years

Autonomous System Control

Cost: 5

These nanites can influence and control the autonomous nervous system. The user can deactivate things like hunger,

pain and sleep. While deactivating pain for example gives a -5 bonus to Resist Pain checks, it can be very dangerous to deactivate it (injuries might kill the character without having been noticed).

Cerebral Booster

Cost: 10

Improving the mental capabilities of an individual involves introducing additional nervous tissue (as well as additional ridges) to the frontal lobes of the brain. The extra cells and increased surface area improve the efficiency of the cognitive and other higher functions of the brain. This is represented by an increase to the recipient's INT of D4+2.

Computer Virus

Cost: 5

The user can release nanites through the skin that can damage computer systems. The nanites can either affect the CPU, degrading its quality or they can affect data stores and thus damage either active or passive programs.

Emergency System

Cost: 10

These nanites try to limit damage to the body by directing the blood away from wounds, releasing medicaments and building alternative blood vessels and nerves to circumvent injuries. If everything else fails they douse the brain in neuroprotectants and lower the body temperature, to allow a cryogenic suspension. The recipient heals twice as fast as normal.

Enhanced Antibodies

Cost: 10

These are simply tailored antibodies designed to fight off the most powerful viruses. They grant a bonus to all checks against illnesses and poisons of +5.

Fingerprint Duplicator

Cost: 5

Nanites in the hand can record any fingerprint they touch and then duplicate it on demand. Bonus/ Penalty to checks to pass through fingerprint scanners depends on the quality of the of the fingerprint acquired.

Grafted Muscle

Cost: 10

This process grafts vat grown muscle onto your existing muscle. The result is an increase in strength (+4 STR) and toughness (+20 HPs).

Lung Augmentation

Cost: 5

This implant induces nanites that modify the lung tissue as well as the structure of the blood vessels in order to allow the user to spend more time underwater, including fully functioning gills. However it neither protects the user against the water pressure, nor does it allow the user to survive completely without air. It is also able to filter toxins out of the air in the lungs, providing the given bonuses to Constitution – checks due to toxins in the air.

Navigation

Cost: 5

The Nanites detect the planets magnetic field and thus when such a field is detectable let the user get a "feeling" for where she is relative to the magnetic poles (also works in proximity to planets with a magnetic field, bonus to navigation +5). The nanocomputer also records the movement of the user through the nanite's accelerometers thus recording the users movement over, across or under a planet.

With an eye enhancer the Nanocomputer can even try a celestial positioning, though rather inaccurate and only working when the appropriate database is available. If the person also has a Comm Port the nanocomputer can try a pinpoint through satellites.

Neuralware

Cost: 20

This involves messing with the human nervous system. This revolutionary piece of nanotechnology places your entire body in a state of seizure, then the processor in the base of your brain controls the seizure keeping it in check. When you want to move the computer relays the info and the resulting movement is extremely fluid and smooth. It gives 3 enhancements;

1) Movement can be controlled far more precisely than normal and be executed far more quickly. The thick, flexible, muscular walls of the arteries expand when blood is pumped into them and then contract, pushing it onward and assisting the pumping action of the heart. This also reinforces the muscle tissue of the arteries to increase their pumping action and accelerate blood flow throughout the body to give you the aerobic performance of an Olympic athlete. +20 MR.

2) It gives the eyes a lightning-quick reaction time to adjust to different light levels, as well as the ability to close completely in extremely bright-light situations. +4 DEX, +4 Initiative.

3) Finally it bonds oxygen in the manner that haemoglobin does, but it releases the oxygen only when haemoglobin has released all it's oxygen. This creates an additional air supply in the bloodstream.

A character with this modification can go for 2 minutes per point of CON without taking a breath as long as they have had sufficient oxygen exposure before (i.e. coming up from underwater, taking a fast breath, then going back down doesn't work). +4 CON

Photographic Memory

Cost: 5

These Nanites rewire the neurons in the hippocampus area (memory centre) and write any information into the memory immediately thus creating and maintaining a photographic memory. The user will remember anything he or she has ever experienced. If the user wants to recall something he makes an INT check.

Sense Enhancer Hearing

Cost: 5

The user has a much higher hearing range than normally and can hear sounds outside the human spectrum. This gives bonuses to all skill checks that involve sound. His hearing is magnified by x10 for every 5 points spent.

Sense Enhancer Visual

Cost: 5

The user can trigger a magnification effect of double normal and overlap it with night and infravision. This also gives bonuses to all skills of +1 where visual acuity plays an important role, also negating penalties for darkness and distance. The nanites also provide a bonus of +1 on the usage of ranged weapons as they can also regulate the movement of the arms making them hold still.

Sense Enhancer Olfactory

Cost: 5

Nanites allow for a much more accurate analysis of the air around the user magnifying his smell by x10 each time bought, and granting a bonus of +1 to all skill checks that involve smelling.

Skinweave

Cost: 5

This is a process in which nanites are used to weave the top three layers of skin with a dense polymer thread. The result is the skin's AC is reduced by 1. -1 each time rebought.

Synaptic Accelerator

Cost: 5

This process encourages the neural cells in the spinal chord and other main nerve trunks to replicate and lengthen. The result is a wider data path for impulse transmission and reduced time for the signal to traverse the distance. Thus more information can be sent in a shorter amount of time. +5 to initiative and an extra attack.

Translator

Cost: 5

Visual and auditory data is fed directly to the nanocomputer by the nanites and the modern translation software then translates spoken or written language and via the nanites the user can speak and write in alien language without really knowing it, the computer takes that part over. It includes active analysis software that can try to understand new languages. The GM can always rule the certain languages cannot be learned that way.

Uplink

Cost: 5

This allows the character to link with any machine whether electrical or mechanical and instantly be able to

control it. He can also directly interface with computers by touch or within a INT x1 metre radius (they will respond to any command). As a side effect the character can also access the internet just by touching a linked modem or phone line. All he need do is close his eyes and he'll be able to see the internet as if it were on a computer screen.

Step 4: Career

If no longer with the original company then the character may be a mercenary, in the military or some form of law enforcement.

The Funding Organization

Determine who paid for the character's augmentation;

01-40 Choose a private corporation. eg. Enron.

41-90 Government department. Choose a country and agency.

91-00 Choose a supervillain group.

Allies or enemies? Is the character still with his sponsor and how do they feel about each other?

01-08 Still with the organization and very well treated. Receives favours and a high wage from them of D10 x100 dollars per week.

09-16 Still with the organization and well treated. Receives a moderate wage from them of D6 x100 dollars per week.

17-24 Still with the organization and dissatisfied. Treated with disdain by them and receives a minor wage from them of D10 x20 dollars per week.

25-32 Still with the organization and treated like a slave. No wage and is constantly watched. Escape will take some planning.

33-44 Organization closed down.

45-52 Organization still exists but has moved onto other experiments or projects. Not interested in the character.

53-60 Left the organization on very good terms. May receive favours and freelance work from them.

61-68 Left the organization on good terms. May receive freelance work from them.

69-76 Left the organization after a fight and is no longer welcome.

77-84 Left the organization after a major fight and some injuries. Hunted by them at Difficult level. They want him recaptured.

85-92 Left the organization after a major battle and one or more deaths. Hunted by them at Severe level. They want him recaptured.

93-00 Left organization after destroying the facility he was kept at with multiple deaths resulting. Hunted by them at Extreme level unless the GM decides the organization has suffered too greatly financially, in which case they may only be able to afford to hunt him at Severe or even Difficult level. They want him dead.

Surgical Composite

The hero was created in an operating room. His body contains parts taken from several bodies. Close examination reveals the scars from his creation. The most famous example is Adam, the Frankenstein Monster. Because of the widespread knowledge of that story, Surgical Composites are feared more than Mutants. They also possess a morbid curiosity about the people whose parts now form their bodies.

Step 1: Age

Determine the character's starting age;

01-20 100 xD4 years

21-40 100 xD6 years

41-60 100 xD8 years

61-75 100 xD10 years

76-90 100 xD12 years

91-00 100 xD20 years

Next decide his background;

Where were you born? What was your childhood like? What was the reaction to your first miraculous recovery from death?

Did you leave your home and family, or did you stay around and watch them grow old and die? If so, how did it affect you? (see the special Disadvantages section for more on this). Where have you been in the intervening years? Were you involved in any famous historical incidents? In the present day where does your character live or is he a wanderer, moving around continuously?

Step 2: Attributes

Roll attributes as normal but CHA -6, STR +2, CON +4. HPs: CON +25, +12 per level. Height varies.

Step 3: Skills

Choose skills in the normal manner. Then for every 100 years alive select 1 additional skill. The type of skills the character has should be determined by what era he was living in when he died.

Step 4: Abilities

All Composites start with the following abilities free;

Dead Form - The character stops aging at the time of his death, and recovers 1 HP per minute. Not truly alive
Composites are immune to certain other mortal vulnerabilities including fatigue, poisons, gases, drugs, disease, possession, mind control, temperature and pain.

Composites additionally start with 35 Points to spend on any of the following abilities. As they earn more experience they may buy or rebuy more abilities.

Standard Arm

Cost: 0

Human; roll normal STR and DEX.

Standard Body

Cost: 0

Human; roll normal CON.

Standard Head

Cost: 0

Human; roll normal INT, WIS and CHA.

Standard Leg

Cost: 0

Human; roll normal MR.

Agile Arm

Cost: 5

eg. Elf; +2 Dex and +1 Thac0 with 1 arm.

Alien Body

Cost: 5

eg. any alien race; This must be worked out with the GM. After picking an alien race determine what abilities are gained from it.

Aquatic Arm

Cost: 5

eg. Lemurian; +2 STR and +1 DEX with 1 arm. No penalties to underwater combat.

Aquatic Body

Cost: 5

eg. Atlantean; +5 HPs per CON, and can resist the effects of high water pressure, up to 100 metres per CON underwater, without worry of such ailments as burst eardrums, damage to blood vessels, and the bends.

Aquatic Head

Cost: 5

eg. Lemurian; has gills which allow him to breathe underwater as naturally as above water and also nightsight.

Aquatic Leg

Cost: 5

eg. Atlantean; swim rate is MR x2 for 1 leg. If bought for both legs then gain MR x4.

Fast Leg

Cost: 5

eg. Centaur; +4 MR and +2 Initiative for 1 leg. If bought for both legs then gain +8 MR.

Mutant Body

Cost: 5

The character can use his points to buy powers.

Regenerative Body

Cost: 5

eg. Troll; +20 CON, -1 AC

Strong Arm

Cost: 5

eg. Giant; +4 STR with 1 arm.

Strong Leg

Cost: 5

eg. Satyr; +4 STR with 1 leg. If bought for both legs then gain x2 normal leap range as well.

Supernatural Eyes

Cost: 5

eg. Dragon; This character can see the true image of any person or object regardless of any form of concealment, disguise, illusion or invisibility (yes, you can see the invisible). This also includes the ability to detect whether it is magical, but not the exact nature of the magic aside from whether it is harmful or helpful.

Supernatural Head

Cost: 5

eg. Ghoul; The head radiates supernatural fear to all within a 5 metre radius +5 metres per level. Victims who fail to save break down, start crying and beg for mercy until the power is turned off. From third level on the fear attack also causes the victim to vomit until the attack ceases. The base victim save is -1 per WIS of the user, +1 every 2 levels.

Tough Body

Cost: 5

eg. Dwarf; +20 HPs, -1 AC

Step 5: Careers

Maybe as a bodyguard.

Step 6: Disadvantages

This character has Distinctive Features +20 points. He is really, really ugly. Not to mention mishapen.

Appendix I:**Transforming Steel****Step 1: Purchase the body**

A transformable robot requires the purchase of two robot bodies (+10% to both costs). One for the robot form (usually humanoid), and one for the other form (usually vehicular). Use the chart below to select the appropriate body. NOTE: All of these forms may be ridden in or piloted in vehicular form.

When you purchase the Piloted Humanoid Body option, you are paying for a redesign in the transformation process which retains the pilot compartment. This only applies to the front seat. Any equipment, passengers, etc. which is in the back seats must be vacated, or it is crushed.

In the table below are the types of vehicles followed by what height they are once transformed into robot mode:

Motorcycle

Humanoid Height: 6-8' (must be an exoskeleton)

Compact Auto

Humanoid Height: 12'

Sports Car

Humanoid Height: 14'

Racing Car: NASCAR, Indy, etc, complete with advertisements

Humanoid Height: 13'

Mid-Sized Sedan

Humanoid Height: 13-15'

Full-Size Sedan

Humanoid Height: 15-20'

Mini-Van/Utility

Humanoid Height: 16-18'

Jeep

Humanoid Height: 15-17'

Full-Size Van

Humanoid Height: 16-20'

Truck

Humanoid Height: 19'-30'

Construction vehicles: land movers, cement mixers, dump trucks, etc

Humanoid Height: 18-24'

Tank

Humanoid Height: 18-24'

Train (does not always need railroad tracks to transform)

Humanoid Height: 20'-30'

Small Aircraft: bi-plane, stunt plane, etc.

Humanoid Height: 20'-24'

Stunt Fighter Plane: F-15 Blue Angel and others of this type

Humanoid Height: 21'-25'

Fighter Plane: F-14 Tomcat, F-15 Eagle, MIG 27, etc

Humanoid Height: 22'-26'

Commercial Jet or Airliner: 747, cargo plane, etc

Humanoid Height: 27'-40'

Space Vehicles: shuttles, spaceships, etc

Humanoid Height: 35'+

Small Aquatic Vehicle: jetski

Humanoid Height: 6' (must be an exoskeleton)

Medium Aquatic Vehicle: small boat

Humanoid Height: 7-15'

Large Aquatic Vehicle: large ship

Humanoid Height: 20'+

Insect or animal

Humanoid Height: 2-8'

Dinosaur

Humanoid Height: 6-12'

Weapon: guns, futuristic cannons, etc

Humanoid Height: 1'-10'

Home Electrical: Cassette/CD Player, appliances, tv

Humanoid Height: 1'-3'

Scientific Equipment: Microscopes, etc

Humanoid Height: 1-2'

The vehicular form may be purchased from a standard vehicle. An additional form may be selected, but there are limitations. First, there is a +10% additional cost per body type for every additional form and the new form's body type must be purchased. Second, the new form must be comparable in size to the other transformed form, so a robot who turns into a jet could not also become a compact car. Third, the Piloted Humanoid Body Cost is doubled for every additional form.

Step 2: Determine Transformation Style

Motorcycles, jetskis and other vehicles of similar size can only transform into humanoid robots or suits of power armour. It is important to note that a motorcycle with an AI still cannot pilot itself without a rider (the balance is wrong)

Most piloted automobiles use the following format: The front of the car forms the legs, the driver's seat area becomes the "head", the rear of the car forms the back of the torso. Arms fold out from under the chassis during transformation. Any missile launchers or other heavy weapons are shoulder or back mounted in robot form, and concealed in the trunk area in vehicular form.

Most non-piloted automobiles use a similar format, except the middle of the car (including the driver's seat) folds over to become the front of the torso, and a head emerges. The head is in the trunk area in the vehicular form. Semi trucks (must use super vehicle template) use the following configuration: the front of the cab forms the main torso, arms and head, and the

rear of the cab forms the legs. The trailer may form an armoured exosuit for the robot for an additional +20% cost.

Jet aircraft use the following configuration: the rear of the jet forms the legs, with one thruster being located in each foot. The arms fold out from the middle of the jet, just under the wings. The cockpit either folds over and faces downward to become the front torso (with a gyroscopically reoriented pilot's seat that moves to a new, upright position) or moves into the head position and remains upright.

The wings either fold over to the back and face straight backward, move to the back and face outward, or move to the back into a swivable configuration (this method is used if the jet has wing-mounted missiles or guns) If heavy weapon systems are installed on the robot, then the player may select one or two of them (one is recommended) to transform into a handheld weapon to be used in robot form.

Step 3: Determining Speed

Running speed is purchased for the robot form, and does not affect the vehicular form. Automobiles do not purchase an engine, each wheel has its own motor (this is included in the 10% transformation cost). Initial speed is 70 KPH. Maximum speed is 300 KPH.

Vehicular speed is purchased normally and does not affect the robot form unless the vehicular form is jet airplane. In that case, the robot form can fly at 1/5 the speed of the jet. A hybrid form in which the robot is primarily in jet form with only legs and arms extended may be purchased for +10.

In this form, the robot can fly at half the jet form's speed, but can only use the arms at 3/4 of the robot form's STR.

A Note concerning HPs and AC. The same HPs is applied to each form. In either form, this HPs applies to the main body. The maximum HPs available is the average between the maximum HPs of each form. AC must be bought separately for each form.

Main Body: 100% of HPs.

Arms: 30%

Hands: 15%

Head: 15%

Legs: 50%

Feet: 25%

Appendix 2: Miniature

Body Type

NOTE: The high cost of these comparatively weaker robots is due to the degree of miniaturization involved. They are fairly useless for combat, but make excellent spies. Also, the humanoid body types may be replaced with animal bodies for a savings of 40% of the body type cost.

Miniature Transformable Humanoid

(can also be used as a remote probe)

- Size: 1' to 3'
- HPs: Base: 50. Max: 200
- AC: Base: 11. Max: 5
- Base STR: 7
- Base MR: 25
- Light Frame Cost: 1
- Reinforced Frame Cost: +2
- Transformation Cost: 6 plus cost of item to be transformed into
- Only micronized weapons may be installed
- STR is limited to 25 unless reinforced frame is selected. With reinforced frame there are no limits but obviously greater strength would require an appropriate increase in power systems to generate it
- Transformation options include but are not limited to boom box, personal computer, television, light vehicle weapon system or handheld rifle.

Micro Transformable Humanoid

(Can only be used as a remote probe for a larger robot)

- Size: 6" to 11"
- HPs: Base: 40. Max: 100
- AC: Base: 8. Max: 4
- Base STR: 4
- Base MR: 25
- Light Frame Cost: 1
- Reinforced Frame Cost: +2

- Transformation Cost: 6 plus cost of item to be transformed into
- Only micronized weapons may be installed
- The robot has a rechargeable power cell. For every two minutes the robot is connected to the master robot and charging, one minute's worth of power is stored.
- STR is limited to 20 unless reinforced frame is selected. With reinforced frame there are no limits but obviously greater strength would require an appropriate increase in power systems to generate it
- Transformation options include but are not limited to small handheld communicator, cassette tapes or videocassettes, portable disk drives, microscopes, telescopes or handguns.

Appendix 3: Gestalt

These robots are all able to combine to form one larger robot.

Step 1: Create the component robots

- Create five or six robots using the standard rules for robots or transformable robots. If five robots are created, then the one which will become the torso must be larger than the others (ie: a giant humanoid and four basic humanoids).

- If six robots are created, then they are all the same basic size, and two of them combine to form the torso. All robots which form the gestalt must use reinforced frames.

Step 2: Assign the robots as components of the gestalt form

A +6 cost procedure will convert a robot into a gestalt leg. This procedure installs the connector to the lower torso, the foot (50% of robot HPs) which is only seen in gestalt mode, and a special shin guard type armour which is also only available to the gestalt mode. This armour has 50% of the robot's HPs (ie: a robot with 500 HPs would have a 250 HPs armour plate) and only protects the lower leg.

Arm robots are a little more expensive. A +7 cost procedure installs the connector to the upper torso, the hand (25% of robot HPs) which is only used by the gestalt, and a forearm armour plate which has 25% of the robot's HPs.

- To configure a robot to become the lower torso, a +4 cost procedure installs the connectors to both legs, a connector to the upper torso, and an armour plate which protects the lower torso. This armour has 75% of the robot's HPs.

To configure a robot to become the upper torso, a +5 cost procedure installs the connectors to the arms and the lower torso, and an armour plate which protects the upper torso. This armour has 90% of the robot's HPs. A head can be installed as well. The head may have giant robot eye weapons and has 25% of the robot's HPs. If one large robot forms the torso, then it must be configured with the upper and lower torso options.

Step 3: Purchasing HPs and AC for each component

To purchase HPs and AC for each component, purchase the points as normal (but at 1/4 price), but only apply them to the gestalt form (you are buying improvements to the armour plate). Limbs and half torsos can only receive HPs and AC equal to the limit of their individual forms, but full torsos can receive armour up to 200% of their maximum HPs and 2 points above their maximum AC.

Step 4: Purchasing STR and MR

The STR and MR attributes are purchased for each component. These attributes have nothing to do with individual robot's attributes. All limb modules begin with a STR of 30, and legs begin with a MR of 40. Additional STR for each limb costs 2 per point. Additional MR for each limb costs 1 per point up to MR 120. 2 points for speeds of mach 1 to mach 10, and 3 points for speeds over this.

Flight is a possibility for the gestalt form. A full hover system must be purchased for each leg and for the lower torso, and a +4 cost procedure is required for each module to adapt the hover system to propel the gestalt robot.

Step 5: Sensors and Weapons Systems

The gestalt form has access to all sensors and weapons, but each version of a sensor is only counted once when determining bonuses.

Step 6: Assigning control of the Gestalt Robot

If the robots are to be piloted by humans then the gestalt form should be controlled by the pilot of the upper torso. If the robots are to be controlled by AI then it is up to the players and/or GM whether the gestalt form is to be controlled by the upper torso or by a combination of all of the robots. Another option is to have an AI which is only used by the gestalt form.

Notes on Gestalt Robots:

Gestalt robot transformation is much easier if the upper body parts (torso and arms) have flight capabilities. Otherwise, the robot will have to form lying down, and then get up (which takes 4D4 melees). Gestalt robots may be forced to disengage by powerful attacks. An attack to the torso which inflicts 10% or more of that module's total HPs has a 60% chance or causing a disengagement.

Humanoid robots may transform into guns for the gestalt robot. Use standard transformable robot rules and purchase a basic humanoid body. Humanoid robots may also form the head of the gestalt robot. In this situation, the robot which becomes the head takes control of the gestalt form.

4. Alien Technology

So you've found or captured some alien or futuristic equipment. Now how do you go about making it work?

Deciphering Alien Technology Table

Roll on the following table when attempting to work out how to use an alien device. Add +1 to the roll for every point that Intelligence is over 24.

Scientist and Tech characters gain an additional +10 to the roll.

01-25 All within D10 metres take 3D6 and the device is destroyed.

26-45 All within D10 metres take 2D6 damage.

46-60 All within D10 metres take D6 damage.

61-75 Nothing happens.

76-85 Misinterpret reason for device. Misled by secondary function.

86-90 Locate on/off switch.

91-94 Activate secondary function reliably.

95-97 Activate primary function reliably.

98-99 Decipher all functions and are able to use the device with no penalty.

00 As above but also discover new use for device which creators never thought of.

Alien Technology Side Effects Table

Table

The following table is only to be rolled on if attempting to use an Alien Artifact. This is not for standard extraterrestrial weapons or equipment.

01-30 None. Its completely safe to use.

31-45 Each use does D6 damage to the user.

46-55 Each use does D6 damage to the user and everyone with D10 metres.

- 56-64 Creates a noise which gives everyone within 20 metres a headache for 20 minutes.
- 65-72 Disrupts all electrical devices within 100 metres.
- 73-79 Throws up impressive but harmless fireworks.
- 80-85 Attracts a swarm of insects.
- 86-90 Renders user unconscious.
- 91-94 Renders user and everyone within D20 metres unconscious.
- 95-97 Each use attracts the supernatural and undead.
- 98-99 Each use creates a random rift.
- 00 Roll for a random effect each use.

5. Building Super

Science Gadgets

Characters in the comics often use equipment that is years ahead of its time technologically. These items may be more powerful, have better or different powers than the original, or be something totally outside the realm of normally available items.

So, in keeping with the genre players may create a hero able to design and build high-tech weapons, tools, armour, etc. according to the rules that follow. To do this the character needs to either be a Gadgeteer class or have the powers of Enhanced Cognition I and II.

Creating new gear requires the super to have a good understanding of the field he is working in. For example, a character trying to invent a new type of weapon needs to have a high skill in Weapon Engineer in order to succeed. The level of expertise required should depend on the complexity of the device (which is decided by the GM):

Simple gadget: requires skill and INT
12-14

Average gadget: requires skill and INT
15-17

Complex gadget: requires skill and INT
18-20

Amazing gadget: requires skill and INT
21 +

Players who want to create a new gadget must have an explanation for its operation, and must describe it to the GM in a logical manner. The GM is free to accept or reject the design depending on its feasibility. If the item violates any laws of nature or goes totally beyond

known science, it has moved to the realm of super-equipment, and is purchased as such.

An inventor visualizes the functions of the device he wishes to create. Through the application of scientific principle, he can create a machine that has the desired powers. This assumes the necessary resources are available, though a Gadgeteer can always disassemble another device to create a new one.

The GM may always require the hero to fetch some component, often the hook to an adventure. To create a gizmo, a hero must work against a difficulty set by the GM after listening to the inventor's plans. The inventor describes the device he wants to create — what it does, how far it can project, and so on — and the GM sets the difficulty according to what's involved.

Gadgets will require a set of blueprints. If blueprints do not already exist, they can be created by the character. Using blueprints give a +1 bonus to all rolls involved in the building of the device.

Next, the character must build each component separately. The separate components are determined by the GM, but as a guideline each feature is usually a separate construction process. Once the parts are complete, one more construction project is required to assemble the completed product.

If this final check fails the assembly check can be undertaken again as it is assumed the Gadgeteer has learned enough from the original failed process to approach it better the next time. This bonus is cumulative if there are multiple failed attempts.

A simple gadget will only take D6 days to develop. Average complexity takes for 2D6 days. A complex gadget takes D6 months, and an amazing gadget takes 3D6 months. These times assume that the super works eight hours a day on the invention. If the Gadgeteer works 16 hours a day time is cut by 50%, but he must make a CON roll each morning or lose fatigue as if he only got a half night of sleep.

At the middle of the project the super rolls against the skills the GM required for the particular gadget. A failed roll adds 50% to the time to complete the gadget. On a critical failure the gadget is destroyed - all work is lost and the development cost (below) must be paid over again. A critical success means that the item is finished immediately.

The skill roll is modified by the complexity of the gadget; no modification for simple; -2 for average; -4 for complex; -8 for amazing. +1 if INT is 18, and +1 for every point over 18.

Creating new gadgets IS very costly. Tools, raw materials, unusual parts, laboratory space.. all require money. The GM will assign two costs which must be paid before any item can be fabricated, the Development cost which is a function of tech level and complexity of an item, and the Production cost which must be paid for each item created.

The second class of equipment covers things that are not available at all; Wristbands of Bullet Deflection, Amulets of Weather Control, and other items that enable anyone bearing them to use a super-ability. Gadgets of this nature are usually purchased strictly with

character points, as many items will be unique. While others will be beyond the pocketbook of even the filthy rich. When the campaign requires it the GM may set a cash cost for super-items.

Research Difficulties

Even men as brilliant as Reed Richards and Tony Stark don't create super suits or flying cars overnight. Every new technological challenge demands time to research the works of others and gather components. The closer the device is to its user or target, the easier it is to build. Items intended to function at very long ranges carry much greater chances of failure. For example, creating a machine that shocks on touch is much less difficult than creating a machine that can blast lightning at visual distance.

If a device's effect is instantaneous, it can be built faster than an item intended to hold its energies for long periods. For example, a seal that binds a demon for a minute is easier to inscribe than one that holds it back forever.

If the device affects a large area or many people, it's harder to make than one that affects just the user or target.

A device that duplicates a power at a certain maximum intensity has that intensity added to its difficulty.

Some powers are far more difficult to simulate than others.

Putting a significant limit on the device can lower its difficulty by 2 points per limit. Similarly, a device that gives a hindrance could lower its difficulty by the same amount.

The GM can always add some other aspect of difficulty required to invent the gizmo. For example, the construction of a time platform might be modified by how far back or forward time user can travel. Also, monetary cost and components could be involved at the GM's discretion, possibly leading to some investment or crime that could trigger an adventure.

When super-scientists get together, they can make some amazing things. When this occurs, the scientist with the highest INT score attempts the action, but each additional scientist with an appropriate skill lowers the difficulty of the device by 4 points.

Of course, sitting around the lab all day doesn't always make for exciting adventures. But it sure can lead to some, if you're a bit inventive. First, there's the "missing part" adventure. At a critical juncture, the super-scientist reexamines his or her blueprints and discovers that this device functions only if it is oiled with a viscous fluid that flows in the canals of Mars. Suddenly, a trip to Mars is required, and who knows what the Martians will think of people stealing their precious oils?

Second, you can always bring in the competition. If your hero's on the verge of a technological breakthrough, somebody probably wants to beat the hero to the punch, or at least beat the hero to a pulp. This competition could turn into a race, a battle to wrest the technology away, or even sabotage.

Third, no one ever wants a powerful device to fall into the wrong hands. Some criminals and terrorists wait until the device is finished before attempting

to steal it. While the hero is up to his or her neck in frammistats, the bad guys are kidnapping the hero's beloved pet and preparing their ransom demands: You guessed it, they'll trade the dog for the device.

Fourth, you can bring in a mysterious patron. Someone sinister could be backing the research. This could be a faceless and unscrupulous corporation like Roxxon or a disguised super-villain like Doctor Doom or Ultron. Here, the hero has unwittingly helped the forces of evil, and now must rectify the error by retrieving or destroying his or her own creation.

Repairing Gadgets

Repairing a device takes time and effort. Each check takes one hour. Each successful Repair check restores +1 to each ability and HPs or brings a destroyed capability, such as an extra or power stunt, back on line. The player may choose which ability is being repaired when making the skill check. A character can repair a power with ranks by restoring its bonus to +1 or higher.

If the device is an ability that the character bought with power points, he can make Repair checks to fix it using his ability's original bonus as his Repair check ranks. If the character also has ranks in Repair, add the two together. This reflects the hero or villain's intimate knowledge of the item. It also allows you to trash a hero's equipment without rendering him powerless until he can find a skilled technician.

You can also attempt jury-rigged, or temporary, repairs. However, a jury-rigged repair can only fix a single problem, and the repair only lasts until

the end of the current encounter. The jury-rigged item must be fully repaired thereafter, and cannot be jury-rigged again until it is fully repaired.

All of the above is very good when you have the time to work on a device, or have others work on it for you. What happens when Godzilla pops up, and you need that device to help you defeat him? You start kit-bashing — taking what is available and working with it to get something that will save the day. Kit-bashing is conducted similarly to normal invention, but at a highly collapsed timescale, and at greater risk of failure.

Kit-bashing may be used to rush a project to completion. If any part of the device is kit-bashed, the entire device suffers the effects of kit-bashing. Kit-bashed devices will succeed on an INT roll of the inventor, but will only operate for INT x1 round before becoming inoperative (depending on the device - some may be inoperative in particularly spectacular fashions). If the inventor can salvage the pieces, he will receive a bonus on future rolls to duplicate the device.

A common approach is to consider that character points bought gadgets have some degree of narrative immunity. That is it might be confiscated, stolen, might fail but ultimately it will not leave the Character's side for long as it is a part of their signature style and image.

It will always be recovered, rebuilt, repaired, replaced, etc. even if that involves some amazing coincidences or unexplained off-screen events. By contrast, equipment not paid for in Points is disposable and alterable for any or no reason, at the GM's whim. As any

soldier knows, being in the field is rough on gear.

Scrounging

Some campaigns may take place in a setting where traditional purchase of parts for a Gadget isn't an option, such as a post-apocalyptic wasteland or a country in the throes of societal collapse due to civil war.

Likewise, some Gadgeteers may not have immediate access to many goods or services, either as a temporary circumstance like being in an isolated, resource-poor locale or as a on-going issue such as lack of funds forcing them to rely on whatever makeshift components they can beg, borrow, or steal.

In these cases a Gadgeteer may have to scrounge for necessary parts rather than buying them. The base time for a scrounge two days as the character makes a scrounging run through the surrounding area to find the necessary parts.

Trying to kit-bash a car when a large junkyard is in the vicinity might increase the character's chances, while trying to find the necessary parts in a desert wasteland where there is nothing more than the occasional rickety shack or stripped frame of a very old vehicle will off course be more difficult.

Scrounging Table

1-2: Some of vital components are unavailable and the character will need to make a dedicated effort to find them. The GM should concoct an appropriate mini-mission of sorts which ties into the current scenario (a common trope which will also help keep gameplay running

smoothly for the group as a whole), after which the character can make another scrounging check.

3-9: The character found some of the needed items but must do some more scrounging to find the remaining necessary parts. After making a routine scrounging run, the character can make a new scrounging check.

10: The character has all of the necessary parts easily available and can proceed to build the Gadget normally.

Modifying Gadgets

Often, a full design is not necessary, as an existing weapon, device, or vehicle may be modified to perform the actions necessary. This is known as modification, and is often less expensive than full-fledged invention. Modification is also used to smooth out the rough edges of inventions, and improve them slowly. Only one modification may be made at a time. If you wish to improve the Speed and Control of your convertible, first you must improve the Speed, then in a separate modification improve the Control.

If you wish to add weaponry or flight capabilities, these would be separate modifications. Modifications that alter abilities have an effective cost of the new ability rank, but may only be made one rank at a time. Modifications that give abilities that the device previously did not have (such as Flight for an off-road vehicle, or adding machine guns to your jeep) are handled according to situation. Time and success of a modification are determined as for any invention. Failure may damage the original device as well. Modifications may be kit-bashed.

6. Superhero Gadget

Examples

Superheroes and advanced technology go together like peanut butter and jelly. Heroes exceed the limits of humanity. They lift buses, outrun high-speed trains, and absorb hails of bullets. Just as some heroes have exceptional physical traits, others have towering intellectual talents. A super-scientist might throw together a device transcending the known boundaries of science.

An inventor with a thirst for justice could build an advanced suit of armour incorporating lasers weapons, jet-powered flight abilities, and plating that can deflect an artillery shell. These heroes use the power of their genius to produce amazing gadgets to battle evil.

By the same token, many super villains rely on their prodigious intellects to menace society. From giant, rampaging robots to mind control machines to death rays that can disintegrate whole cities, the same inventive impulse giving rise to heroes can spawn the darkest villainy as well.

Gimmicked Arrows

The following arrowheads can be manufactured by anyone with sufficient talent, but are mainly used by the Gadgeteer character types. The arrowheads can be used by any bow or crossbow. The first cost given is for making it oneself and the second is if they are to buy the entire arrow ready-made.

Utility Arrows

Adhesive:

On impact, a soft, extremely sticky putty is splattered over a 10 cm square area.

The putty will adhere to just about anything, be it organic or not, requiring a STR of 24 or more to break.

Fire Fighting:

Impact causes this bulky arrow to spread a fire fighting foam over a 1.5 metre diameter circle. The foam has an 85% chance of extinguishing most fires.

Flare Arrows:

Set to detonate either after a certain amount of time or upon impact (setting made via a tiny recessed button on the base of the arrowhead), this arrowhead releases a bright flash of light equivalent to a flare. Stored in the shaft of this arrow is a mini-parachute.

This allows the "flare" to hang in air for up to D6 minutes. Damage - 3D6 if directly hit by this arrow + chance to ignite combustibles. Chance to ignite is equal to the damage dealt. Duration of illumination is D4 melees.

Freon/Freezing:

A burning cold spreads over a 30 cm radius upon impact, causing 4D6 damage and possibly even making weak metals and other materials even weaker because of their sudden brittleness.

Grapple:

These arrows have a 'double head', the first head is armour piercing to punch into the target, and the second head is a tripod of smaller heads that (depending on the style of arrow) bore into the material/magnetize/chemically bond with the surrounding area. The shaft has a carbon composite string capable of

carrying 500 lbs. of weight trailing it. The thought here is that the archer could then tie off the other end and use it to swing from building to building, as a tripwire, or any other variety of uses.

Microphone:

The arrowhead is equipped with a miniature microphone and transmitter that can pick up sound in a 9.1 metre radius and relay it up to 610 metres away. The microphone has a life of five hours and needs a receiver that is set to the correct wavelength in order to hear the transmission.

Pheromone:

Similar to the Stench Arrow, but it coats the target with a scent that is irresistible to a certain pre-selected species; a type of insect, dogs, cats, etc. Standard damage, but within D4 melee rounds, a crowd/swarm of the appropriate animal type will gather and try to mob the target; target is -2 to all skills, loses two melee attacks/actions per round and speed is halved until he/she can fight their way clear of the distracting and debilitating throng, or until the chemical dissipates D4+3 melee rounds later.

Note: the correct type of animal must plausibly be in the general area for the arrow to cause this effect; shooting an adversary with the insect-attracting arrow while fighting at the North Pole is unlikely to yield a useful outcome.

Smoke:

Creates a smoke screen covering a 3 metre area. Comes in yellow, red, grey and black.

Tracer Bug:

Transmits a radio signal that can be followed up to 12 kms away. Battery

powered, with a limited life of 72 hours of constant transmission. The arrow must stick into the target or fall on top of the object (without falling off). There is always a chance that the tracer bug will become dislodged and fall off (roll once for every half hour; 132% chance). Inflicts normal arrow damage.

Whistle:

A aerodynamic hole is carved through the arrowhead, causing it to emit a high-pitched whistle when fired. This can be used to distract an opponent or draw its attention in a specific direction.

Weapon Arrows

Acid:

The arrowhead is a glass bulb that breaks on contact, splattering its contents over a 15 cm radius. The bulb can be filled with any acid.

Armour Piercing:

Sharpened to a fine point and made with a depleted uranium core, doubling the arrows damage, reducing the maximum range by 10%, and effectively reducing a targets AC by 2.

Barbed Arrow:

An oldie but a goodie - standard damage, but a target attempting to pull the arrow out of their body will suffer an additional D4+2 damage, as the specially angled barbs on the arrowhead lodge in their flesh, tearing a larger wound. A successful roll against an appropriate medical skill will allow an ally to safely remove the arrow, but attempting this with an arrow lodged in your own body incurs a penalty of -2.

Blunt:

This arrow does a measly D4 but an attack against someones head will knock them out.

Boomerang:

2D4 damage; after being fired from the bow, the arrowhead unfolds into a boomerang shape, causing the arrow to return as would a normal boomerang.

Concussive:

Causes a fragment-free explosion of D4 damage but doing the equivalent of 2D4x10 damage for the sake of determining the chance of a knock-down to a 1 metre radius.

Disruptor (Sound):

These arrows emit a very high pitched scream/whine as they soar through the air. Damage - 2D6 from direct impact with the arrow +D4 damage from bleeding from the ears, nose and possibly the eyes. Additional effects: minus 2 to all combat rolls.

Electrical Discharge:

The arrowhead discharges an electrical discharge upon impact, causing 2D6 damage and duplicating the effects of a hand held stunner.

Light Explosive:

D6 or 2D6; 10 to 20 cm blast radius.

Medium Explosive:

3D6 or 4D6; 30 to 40 cm blast radius.

Heavy Explosive:

5D6; 50 cm blast radius.

High Explosive:

6D6; 61 cm blast radius; range is reduced by -10%.

Ultra-High Explosive:

D6x10; 91 cm blast radius; range is reduced by -25%.

Flash:

-6 to Thac0 and AC for those who look at the instantaneous flash.

Gas:

The arrowhead shatters on impact, releasing a toxic gas that fills a 3 metre area. The character can use tear gas, tranquilizer gas (sleep/knockout for D6 minutes), paralysis gas (a nerve toxin, causing temporary paralysis for D6 minutes). Everybody in the gaseous area must roll to save versus gas.

Incendiary:

Spreads burning phosphorous over a 1 metre radius upon impact, causing (D4x10)+5 in burning damage. It will burn for D4+1 full melee rounds.

Multi-Warhead:

Rather than a separate arrow unto itself, this is a carefully balanced attachment that allows the arrow to carry three special arrowheads at once. The three arrowheads can then be set to spring forward and lock into place upon contact or to be launched from the arrow after a set distance or time has elapsed, spraying all three over either a wide 1.5 metre diameter or tight 30 cm diameter circle. Range: Reduce by 25%.

Net Carrier:

Moments before reaching the target, a strong, wire net is released. The weighted tips of the net will wrap around a man-sized target with a 60% chance of entangling him and bringing him to his knees. A normal STR of 20 is needed to tear off the net once entangled.

Neural Disrupter:

Releases an energy charge that plays havoc with a persons nervous system. Be -8 to Thac0, AC, and dodge for 2D4 melees.

Riot:

Upon impact, the round head of this arrow fires small rubber pellets in all directions, filling a 3 metre area. Everyone in this area is struck for a stinging 1 or 2 points of damage and will be knocked unconscious on an 18 to 20.

Stench:

Upon impact, a small vial explodes and showers the target with a powerfully pungent fluid. Standard damage, but unless a target successfully saves against nausea, he will react for D4+3 melee rounds, after which time the chemical will dissipate, or until the arrow is removed, whichever is sooner.

Tangle Line:

D4 if used as a weapon instead of to entangle. A specially curved weight opens up on the arrowhead, causing the arrow to return like a boomerang and then release a thin cable while continuously fly in a spiral, wrapping the line around the desired target.

Once entangled, the line has a chance of tripping up a moving target as though he had been hit by an impact causing 2D4x10 damage. The target does not actually suffer damage). A STR of 20 is needed to tear off the bonds once entangled.

Tranquilizer:

Instead of a conventional arrowhead, the shaft is tipped with a needle and container that releases a powerful sedative upon impact. D4 damage plus

save versus non-lethal poison at -4 or be knocked unconscious for 4D4 minutes.

The dosage is meant for a man-sized target and so larger targets will have a lesser penalty (none to -3) while smaller targets will suffer a greater penalty (-5 to -8). Furthermore, unless the saving throw succeeds with a total roll (bonuses included) of two points higher than is required, the victim will be -2/ to all actions, -1 attack and -4 to initiative due to grogginess.

White Noise Generator:

This arrow produces white noise, making it impossible for microphones to pick up any other sound within 91 cms of the arrow. This arrow will also annoy animals (and superbeings) with sensitive hearing.

Other Gadgets**Deck of Death:**

This seemingly normal deck of cards is actually a deadly tool in the right hands. Each card is made of a very flexible but still solid paper/metal polymer with just enough iron in the mix to add strength but not enough to trip a metal detector.

Each edge has been sharpened to a razor thin grade and is quite sharp despite being so small. A single card used as a slashing weapon or being thrown does D4 damage. Using a quarter or more of the deck in a fanned out fashion as a slashing weapon will do D6+1 damage per slash.

Full Mobility Combat Armour:

This is a suit of specially designed hard armour plates over a mobile armoured mesh. It is very manoeuvrable and preferred by the bounty hunters who must be as flexible and adaptable as

possible. A helmet that can be sealed to the armour provides limited environmental capabilities, and when combined with a jet pack, the user has a light, versatile armoured suit that affords good protection and great mobility. AC: 4, HPs: 100.

Full Mobility Flight Pack:

Light, but limited jet pack that is little more than a souped up jump jet system. It can only fly for 5 minutes at a time at speeds up to 260 kph. It can cover about 30 kms with each short flight. It holds enough fuel for 10 flight periods. Between each flight period, the pack must cool for 5 minutes.

It is possible to make almost continuous flights by resting more frequently. The greatest strength of the pack is not extended flight, however, but fast, maneuverable combat. When worn by a skilled pilot the flight pack provides the wearer with a +1 to Thac0 with hand held weapons or fists, +2 to parry, +4 to dodge, and can perform stunts with a +1 bonus to the roll.

Ice Pellets:

contains a compressed liquid gel of Freon that can be used to freeze (-50 centigrade) targets in a 5 cm covering of ice (expands out to a total of 6 square metres, 5 cms thick. Will immobilize targets for 2D6 minutes. HPs of ice: 120; takes a strength of 40 to escape/break ice. Cold inflicts 5D6 cold damage and numbs exposed organics (-2 actions, -4 on all rolls) for 2D4 minutes after thaw/escape.

Imaging Orbs:

These small, marble sized black balls are usually carried in groups of 10-30. When rolled for more than a dozen feet

continuously, they split evenly into two halves and start emitting high frequency waves out to around 8 feet each. a fistful of these marbles can be used to rapidly sonar map a room or area, updating in real time. The data collected by these marbles, is linked to a portable unit carried by the deployer, and the dedicated software uses it to generate the real time sonar map.

Deploying the marbles requires an action to perform, and they react quickly. Using the hand held unit, the deployer can quickly gauge numbers and movements in the mapped area.

Imprint Mat

The Imprint mat is a square of fabric, typically rubber backed and matt black in colour, designed to respond to pressure by 'squirting' micro particles when pressure is applied. The particles are virtually invisible, but phosphoresce in the ultraviolet scale. Any target that has set foot (or in the case of the larger mats, driven over) not only is covered in these microparticles, but leaves a discernable trail of them as they leave.

When perceived with specialised lenses designed to observe into the UV, or with any ultraviolet vision enhancements, the desired target can be identified by the tell tale splatter around his legs and feet, and can be followed with relative ease. Tracking effects wear off after about a mile of regular foot travel, though rough weather or water can reduce this substantially depending on circumstances.

The mat has a secondary feature. It can store 4000 individual footprints, tagged with a time date stamp. Auxilliary storage can expand this to a virtually unlimited database, with support

software able to make excellent guesses as to the target's height, weight and pace. Linked to a network of mats, they can be detect when a person of a specific print enters a specific area.

Neural Staff:

This is a weapon that releases an energy charge that temporarily short-circuits the nervous system. Damage: 3D6+STR if used as a club, D6+STR if used as a jabbing weapon plus stun. Save vs stun or be stunned for 2D4 rounds (-8 on all rolls plus reduce speed and attacks by half).

A successful save means character has lost initiative and one melee attack. Has a 75% chance of knocking target unconscious for 2D4 minutes (after waking up will be stunned for D4 minutes more). Effects are cumulative, if struck more than 4 times with unsuccessful save, will be rendered unconscious for D6x10 minutes.

Pen Drone Dart:

It's an expensive and heavy fountain pen. Removing the cap causes two sets of contra-rotating blades to unfold and inflate at the top. It flies hanging vertically downwards. The drone has a camera, a payload and a sharpened point and can be guided by either a smart phone app or via an analogue control built into a wrist watch.

Payloads are switchable and contained in the ink cartridge and can include small bombs, a one shot high voltage charge, drug injector, hypodermic blood sampler, acid and a tiny mechanical arm with a usb plug and hacking software.

Poker Chip Bombs:

Small bombs made to look like poker chips, these little devils are deadly and versatile. Small amounts of C4 are cased in plastic and painted to look just like normal poker chips that only feel slightly heavier than a standard chip. The centre of each chip has a small blasting cap, disguised by the design.

All that needs to be done is that both sides of the centre of the chip have to be held down with force for three seconds and throw. The fuse time depends on the colour. White will have a standard three second fuse, Blue will have a ten second fuse, green will be thirty seconds, and finally red will be a full minute. Each chip will do 3D6 damage each.

Portable Bridge:

As the title says, this device is a portal bridge, capable of spanning a crater, crevasse, river, or other chasm, and being used as a road to carry people, vehicles, and gear from one side to the other. The device itself looks like a closed laptop, and has roughly the same dimensions. It opens in a fashion similar to a laptop, and once opened you can see that it has a very small keyboard and output monitor.

The device comes equipped with a high-intensity self-leveling laser system to accurately determine distance needed. The operator, using a combination of keyboard instructions and GPS coordinates obtained by the laser, can fine-tune where the bridge is to end, and the device will warn the operator if the terrain on either end is not stable enough to be anchored to.

Anchor spikes come out from the sides of the device and anchor it to the ground,

while the device seemingly splits into 2 pieces. The half that isn't anchored to the ground is then "pushed" away from the part that is anchored like two magnets with similarly charged poles push away from one another. Once the second half has reached the distance entered, anchor spikes protrude from it and anchor it to the ground.

Between the 2 halves is a heavy-duty force field, capable of holding up to 10 tons of weight at one time. The length is 10-300 metres, with the width being about 5 metres. The device can be retracted with the push of a button, located on the side of the device. There are 2 of these buttons, one on each half of the device. When retracted/not in use, the device can be stowed in a similar fashion as a laptop - in a bag or backpack. Surprisingly light, it weighs but a mere 2 pounds. AC: 10, HPs: 500

Rocket Punch Gloves:

Each glove is a Reinforced titanium frame that covers the forearm and hand like a combination gauntlet and bracer. Along the outside of the forearm are mounted three tubes that house one-shot explosive charges. When these gloves are activated and used to strike a target, the target takes D6x10 damage and is knocked back D6 metres if they weigh 250lbs or less. After the three explosive charges are spent, these gloves will need to be reloaded.

Single-Use Teleport Ring:

A favorite escape mechanism of supervillians, this disposable teleport ring will whisk the occupant away to a predetermined location. Both by the massive strain the teleportation puts on the device's mechanisms and by deliberate design, the workings of the

booth are destroyed, rendering them unusable and the destination settings untraceable. It has a range of 100 kilometres and the end destination MUST be a fixed and stationary location. It can teleport up to 1000 lbs.

Snake Bite:

A 3 metre long whip made entirely of interlinked flexible metal scales that works similar to a snake's body. The whip itself does 2D6 damage but the real power is in the end. Instead of tapering off at the end, there are two metal "fangs" that each contain a chemical agent of some kind (usually some kind of sedative or poison). When the fangs enter into flesh or armour, the pressure put onto the ends works like a piston and forces the chemicals out and into the body or armour. The victim must make a successful save versus toxin/poison for each dose he or she takes (each fang is one dose).

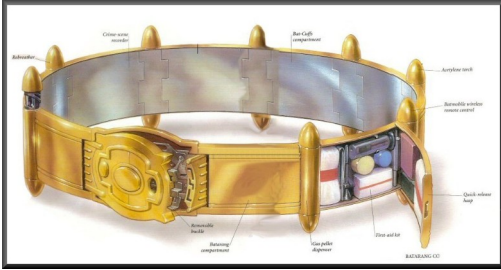
Stun Disks:

These thrown weapons have a depleted uranium slug within a hollow circular track along the inside of the disk - much like a weight placed into a corked baseball. This weight spins inside the track as the disk flies towards its target and at the moment that the target is struck, this weight is always on the point of impact. Because of this, a user skilled in the use of thrown weapons is able to throw these disks to do 2D6 damage +STR bonus, and on a strike to the head the target is stunned for D6 melee rounds. The normal range for these thrown weapons is 15 metres and they weigh 1lb. each.

Suspension:

This dust is a quantum stasis nanodust that works by preserving organic

materials. The dust ‘freezes’ the state of organic materials it falls upon, locking it in quantum stasis, and transforming the material into a glossy, stony, rigid material state. The dust will suspend one person for up to 1 week.



Utility Belt:

The ubiquitous “utility belt”, the hero’s best friend, can be a player’s worst nightmare when it comes to stocking all of those various pockets and pouches with just the right equipment for every occasion.

Utility belts are home to some of the most oddball and unexpected gadgets. Some characters always seem to have just the right thing at the right time to solve any problem, no matter how unlikely it might be for them to be carrying something like it around with them.

The belt is made up of a strap and buckle with ten pouches or cylindric cartridges attached to the outside.

The usual configuration for a utility belt is in an array of alternate items the user can pull out one at a time. All the items will of course be miniaturized versions which can fit into the compartments of the belt.

Some examples of gadgets include;

Antitoxin

A chemical compound designed to neutralize the effects of certain known toxins or venoms.

Brass Knuckles

A heavy striking plate that fits over the knuckles, increasing the damage of the wielder’s punches. Originally made of brass, modern versions are more likely chromed steel or advanced composites. A set of brass knuckles might have high-tech or magical capabilities to inflict additional damage, channeling kinetic energy, electricity, or some similar damaging effect.

Capture Weapon

A throwing weapon intended to hinder and capture a target, such as a bolo, collapsible net, or even fast-hardening foam grenade.

Climbing Gear

Gloves and boots equipped with suction cups or micrograbbers and similar gear provides a +2 bonus to checks to climb.

Collapsible Truncheon

A club or baton that collapses small enough to fit into the palm of the hand (or a utility pouch or pocket).

Commlink

A button-sized radio able to handle voice communication with other devices on its frequency up to about a mile away (longer if patched into the cellular network or a provide network of signal boosters). A Subtle commlink is encoded or scrambled to prevent eavesdropping.

Cutting Torch

A tool with a high-temperature flame for cutting through metal. Variations on the cutting torch include a water-saw (which uses a high-pressure stream of water with fine grit to cut through materials) or thermite paste, a high-temperature chemical compound for burning through metal locks, bars, and similar obstacles. It may also include small amounts of powerful acids used similarly.

Digital Recorder

A palm-sized device for recording audio and/or video information onto a digital data-card.

Evidence Kit

A set of tools for the Gather Evidence use of the Investigation skill. Removing any circumstance penalties for lacking proper tools.

First-Aid Kit

This small kit contains antiseptic, bandages, and other essential supplies.

Flashlight

A compact, high-powered light able to eliminate penalties for darkness in the immediate area. Stealth types may use Subtle flashlights that emit infrared or ultraviolet light so only the user (wearing IR or UV lenses) can see what the flashlight illuminates. There's no visible light to give away the user's presence or position.

Gasmask

A foldable filter mask that provides protection against inhaled gases and those directed at the face (such as eye protection against tear gas).

Glider

A foldable parawing or ultralight, able to deploy in an instant to serve as a glider. This gadget is often built into a costume component like a cape or cloak, or even a backpack or beltback from which the glider deploys.

Glue goblets

The glue goblets are made of a strong, sticky adhesive. They're used to encase an opponent and make it harder for them to move.

Grappling Hook

A grappling device made up of a high-tensile cord that can attach to various surfaces. A claw-like projectile can be found on the end.

Lockpicks

A small set of tools suitable for using the Technology skill to open locks. It is assumed to include tools for both mechanical and electronic locks.

Mini-Grenades

A single palm-sized device or a handful of smaller, pellet or ballbearing sized ones. Mini-grenades, like their larger cousins, are either explosives, flash-bangs, or gas weapons covering an area around where they are used. These can include;

- Explosive
- Flash Bang
- Gas

Napalm Gel

This special incendiary gel is kept inside small packets. When broken open the gel sticks to a surface and sets it on fire.

Parachute

An even simpler version of the glider (previously) intended primarily to slow a user's fall to a safe speed, allowing for a safe landing.

Rebreather

A small oxygen cylinder and filter with a mouthpiece, providing a few minutes of breathable air.

Restraints

Plastic zip-ties or locking metal cuffs intended to restrain a prisoner. They can only be placed on a helpless or unresisting target and impose the disabled and vulnerable conditions (immobilized and vulnerable if the target's legs are restrained).

Swing Line

This is a gadget able to project a sturdy swing cable, suitable for swinging from tall buildings and the like. It might be a spring- or gas-powered grappling gun or high-tech spinnerette projecting artificial "webbing" or the like.

Throwing Weapon

A small handheld and aerodynamic object, designed to be thrown as a weapon. This might be a boomerang, flying disk, sphere (like a small baseball), or some other shape based on the character's theme.

Tracer Bug

A tiny radio transmitter about the size of a pinhead that can be attached to a target and used to track the target's location and movements with a range of about a mile. It requires either an attack check or a Sleight of Hand check to plant a tracer onto a target. A similar bug transmits audio information, serving as a listening

device for eavesdropping on conversations nearby.

Wrist-Comp

A compact computer, typically built into the back of a glove or wrist-band for easy access (although it may have distributed parts elsewhere on the wearer's person).

A wrist-comp provides the tools necessary for use of the Technology skill for interacting with computer networks. A skilled character can use it to acquire information, alter records, or access and control computer systems and their associated equipment.

Electrical defence mechanism

The utility belt features a built in security system to stop it from being used by enemies. This takes the form of a powerful electric charge that can stun anyone foolish enough to try and open the compartments.

7. The Starship

Construction Guide

V2.3

The Starship Construction Guide contains all of the information necessary to construct starships for your roleplaying games. This information in the manual allows the design of state-of-the-art starships with tables for various engines, weapons, shields and computers that make up starships.

Step 1: Hull Shape

The basic shape of what your ship will look like.

Open Hull

An open skeletal Hull with no exterior covering.

Needle/Wedge

A long pointed exterior.

Cone

An oblong rounded exterior.

Cylinder

An oblong rounded exterior with square edged ends.

Box

A square edged exterior.

Sphere

A ball shaped exterior.

Dome/Disk

A half sphere or flattened sphere exterior.

Irregular

A modular exterior which isn't clearly definable as any one of the other possible configurations.

Planetoid

A metallic or hollowed out asteroid.

Step 2: Size

Ships can be any size length and diametre. When designing a ship you must ensure that there is adequate life support to handle the number of passengers as well as crew. For every 10 x10 metres squared of space the ship can have 1 airlock and carry 1 passenger.

Airlocks are pressured exits to and from the vessel, they equalize the pressure on either side and fill with oxygen before allowing entry into the vessel, most also decontaminate people passing through in order to prevent people from carrying any alien infections or contaminants onto the ship.

Every ship has one airlock for every size class, airlocks can vary such as the canopied cockpit of an interceptor, or the rear hatch of a shuttle, the retractable cargo lifts and ramps of a freighter and so on. An airlock always takes three rounds to depressurise, re-pressurize and open.

Also those with Decontamination capabilities as appropriate to the type of Airlock provide a single re-save if an individual is infected with a disease or similar, if the save succeeds then the disease is cleansed from the individual.

Step 3: Increase Ship

Attributes

Listed here are how much it costs to buy each individual point of each attribute. eg. between 1 and 2 A/DF cost 10,000 per each point, while 3 to 5 cost 20,000 per each point.

AC

This is a rating for the protective value of a vehicle's figured from 10 (very weak) to 0 or even -10 (the best armour which can be attached). The higher the AC the more vulnerable the vehicle is to damage.

Armour provides protection by reducing the chance that a vehicle is attacked successfully (and suffers damage). Armour does not absorb damage, it prevents it.

A/DF

Every vehicle has an Acceleration/Deceleration Factor. This is how many hexes or spaces the vehicle can add to or subtract from its speed in one turn. Vehicles cannot accelerate and decelerate on the same turn. 1 space = 2 square metres.

HPs

How many Hit Points the vehicle has or much damage it can take before being destroyed.

MR

Each vehicle also has a manoeuvre rating. This number signifies how many times the vehicle can turn during its move. The vehicle must move forward at least 1 space or hex after each turn.

Speed

How fast in kilometres per hour the vehicle can travel at.

Damage Control Repair

When the vehicle is damaged the pilot can take a turn to attempt to use the automatic repair system to fix it, with each successful roll repairing D20 Hit Points damage or 1 system. This is tied to the vehicle's DCR or Damage Control Repair. To do this he decides how many DCR points he assigns to each repair, with the amount of points used equaling the percentage chance that the repair will succeed. If the roll is equal to or less than the number of DCR points allotted to that repair then the damage is erased. If the roll is higher than the number of points allotted then it is unsuccessful and cannot be repaired in the field. Other systems also can be repaired using the robot's DCR, as many as the pilot wants, so long as still has DCR points to allocate. The entire DCR can be applied to each repair. One roll is allowed every 30 minutes.

Attribute 10,000 per Point

A/DF	1-2
AC	6 to 3
HPs	1-200
Speed	1-200
DCR	1-200

Attribute 20,000 per Point

A/DF	3-5
AC	2 to -3
HPs	201-800
MR	1-2
Speed	201-Mach 1
DCR	201-800

Attribute 30,000 per Point

AC	-4 to -10
HPs	801+
MR	3-5
Speed	Mach 2+
DCR	801+

Step 4: Armour

Every ship has a hull covering, the layer which covers the Hull into which all systems are built, this sealed layer also includes the armour of the ship being built. The type of material used can have an effect on mass, hardness, and cost, as well as possibly granting other special benefits like the ability to naturally heal for biological hulls or immunity to lasers.

Soft Steel

A soft ferrous metal. Steel is the cheapest hull material available, more commonly found on older vessels. Steel is an alloy and as such quite strong and resilient but prone to rust, tending to mean the hull needs constant care and maintenance to maintain its integrity, it is however inevitable that steel will eventually need patching or replacing. Hit Points = 10 x ship size (total metres).

Hard Steel

A harder ferrous alloy. This is the material that is now most commonly used to build ships. It is stronger and lighter than soft steel and it has the added benefit of never rusting. Hit Points = 20 x ship size (total metres).

Composite Alloy

A composite metal/ceramic alloy. Hit Points = 30 x ship size (total metres).

Crystallion

A special form of crystal molded as a hull work. It is about the same in weight to hard steel and so does not alter a ships mass at all. Hit Points = 40 x ship size (total metres).

Dwarf Matter

A hull whose molecular structure has been partially collapsed in a massive

artificial gravity field (like a white dwarf star). Hit Points = 50 x ship size (total metres).

Bonded Dwarf Matter

As above but with a small induced electronic current to strengthen the internal electron bonds. Hit Points = 60 x ship size (total metres).

Coherent Dwarf Matter

As above but also dynamically manipulated to polarize the subatoms in the hull. Hit Points = 70 x ship size (total metres).

Nanofluidic

Consisting of a thick layer of gel-like fluid sandwiched in a dwarf matter structure, nanofluidic armour is “smart” armour—it concentrates at the point of impact to blunt physical blows and circulates around heat sources to dissipate energy. Hit Points = 80 x ship size (total metres).

Promethium

Promethium alloyed with titanium and vanadium it forms a nearly indestructible metal capable of absorbing energy in proportion to its mass without loss of efficiency. When absorbing energy it activates the alloy's regenerative properties which in turn allows it to mend itself. If damaged the hull will self repair at a rate of 1 HP per 2 damage taken. Hit Points = 50 x ship size (total metres).

Neutronium

Is a rare, extremely dense, incredibly strong form of matter found naturally in the cores of neutron stars. It is impossible to scan through neutronium. It is a dense alloy made up of non-toxic, trans-uranic elements on the periodic

table that had far more neutrons than protons or electrons and is difficult to produce. As armour, it is resistant to almost any form of energy and matter. This makes it impervious to all known forms of contemporary weapons. Hit Points = 90 x ship size (total metres).

Step 5: Engine

Perhaps the most important part of any ship is the power plant that provides all the energy that is required to power it and everything in it (doors, lights, lifts, shields, engines, weapons, life support, helm controls). Power plants are thusly of great importance to all vessels for without them a ship is lifeless in space, unable to move or function.

Anti Gravity

This engine provides incredible thrust and maneuverability by cancelling the gravity around the vehicle. The engine requires no fuel and produces no exhaust; it's ideal for atmospheric, orbital, or deep-space work.

Batteries

Used to supplement the normal power plant. This serves as an emergency back up.

Fuel Cell

Hydrogen/oxygen fuel cell. They produce pure water as a waste by-product.

Fusion

The most expensive yet the most efficient. This engine consists of a fusion reactor with one wall of the magnetic bottle missing, directing the thrust in the form of super-heated plasma. It is intended for space-only applications; its exhaust stream would melt anything it landed on and incinerate everything within a few hundred yards of ground zero; it also expels a tremendous amount of radiation. It uses hydrogen for fuel.

Internal Combustion

A hydrocarbon burning reciprocal engine.

Nuclear Fission

Uses radioactives as fuel such as Uranium and produces all sorts of nasty radioactive by-products, including Plutonium. Fission reactors can be dangerous.

Solar Cells

Photoelectric cells that produce electrical energy from light.

Turbine

A hydrocarbon burning rotary engine.

Step 6: Drive

The ship's main engine is just that, the vast engine with which any vessel is provided forward or upward momentum. It is not however the means by which a starship is provided directional movement beyond this as it is the manoeuvring thrusters that do that not the main engines.

Main engines also tend to require a lot of energy. Every craft needs a main engine with the sole exception of space stations, which as a general rule do not require the ability to move, and only need station-keeping manoeuvring thrusters.

Faster Than Light Drives:

There are various different ways for a ship to travel faster than light;

- 1) Making space into waves, and skipping between the crests (Jump Drive).
- 2) Bringing points in space closer together (Fold Drive).
- 3) Changing the speed of light around the ship (Warp Drive).
- 4) Reducing the ship's mass is reduced to 0, and it can go any speed (Contra Gravity or Anti Gravity).
- 5) Leaving our universe and going through a parallel dimension (Hyperspace Drive).
- 6) Entering subspace and taking a bubble of real space with you (Warp Drive).
- 7) Compressing space around the ship to make the distance shorter (Warp Drive).
- 8) Converting the ship to a type of energy when it leaves and reconverts to matter at it's end destination (Transmat Drive).

Manoeuvring Thrusters

100,000 kms range. The main engines provide the forward and upward thrust but to turn or aid manoeuvres a ship

needs manoeuvring thrusters. They are used to speed up, slow down, turn and almost any other manoeuvre that involves something other than going forward.

They can propel a ship through a planetary atmosphere and land it safely on a planetary surface. Thrusters also serve as secondary engines when primary engines fail or shut down. They provide a speed of 100kph.

Chemical Drive

480,000 kms range. A Chemical Rocket functions by igniting a substance and using the resulting explosion as a thrust. The type of fuel used by these rockets varies widely, but fuel requires a great deal of a ship's internal volume and needs to be replenished.

Ships with rockets can only move in the direction that the rockets point in, although carefully placed manoeuvring rockets and mobile thrusters eliminates most of these problems.

Ion Protolight Drive

1 AU range. Ion drives require little to no fuel, can generally produce high levels of acceleration, and with carefully placed units, can offer unmatched manoeuvrability. The ion engine generates power to break down molecules of a fuel material to create ions, and then expels them by means of a magnetic impeller.

It doesn't provide as effective a mass-thrust ratio as the fusion torch, but it's more fuel efficient, and its exhaust is not nearly as dangerous. Ion engines don't function in any kind of atmosphere, so most ships with this kind of power plant also come equipped with thrusters.

Photon Sail

5 AU range. Photon sails are immense but extremely fragile foil structures only a few molecules thick. Light pressure from a nearby star (or laser drive station, when available) provides motive force. The sails' acceleration rates drop to half if the ship is beyond the edge of a star system and drop to one-quarter if the only available light is starlight.

The sails can be wrecked by minor damage, but every ship equipped with photon sails carries at least three spare sets. Unfortunately, it takes 12 hours to replace damaged sails, though deployment or stowage of the sails takes only 1 minute.

In combat, any weapon hit against a sail-driven starship destroys the deployed photon sails and prevents the ship from moving until the sails are replaced. The sail-ship continues on its last course and retains its former speed until the sails are replaced.

Accordingly, most sail-ships carry a secondary propulsion system (such as thrusters or an ion engine) for emergency manoeuvring and sailing against the sun. Photon sails are completely useless in atmosphere—in fact, they're instantly destroyed by atmospheric entry—making a secondary propulsion system a virtual necessity for most sail-ships.

Impulse Drive

1 light year range. Impulse Drives are used to power the ship when speeds of less than the speed of light are required. They are also used to provide power to many ship systems even while under Warp. They employ advanced fusion-

type reactors to provide energy and/or thrust as required.

Impulse engines are used for planetary orbits, and for entering and exiting planetary systems. Standard full Impulse speed is one quarter light speed. Deuterium serves as the fuel source for Impulse engines. The Helium plasma produced by the fusion process is used for thrust. Tech level 8 only.

Warp Drive

3500 light years range. Warp reactors use small bits of anti-matter to annihilate matter, producing potentially hundreds of times the energy of the same weight of hydrogen fusion fuel. While it is the most expensive power source by far, it is also the most powerful for its mass.

Vessels are propelled at such huge speeds that time outside the vessel actually slows down. This allows the vessel to travel great distance in much reduced times of only 1 day for each 100 light years being travelled. Tech level 9 only.

Hyperspace Drive

10,000 light years range. This involves the ship entering a parallel universe where there is a higher speed of light. When the journey is complete the ship returns to real space.

Intergalactic Jump Drive

1,680,000 light years range. Jump Drives work by drawing a vast amount of energy and using it to literally pull a hole in space known as a "jump conduit" to a transitive plane called "jump space". In Jump space distance and time does not work the same way in as it does in real space. Thus by travelling through Jump space vast amounts of distance can be

traversed in a far shorter time. Tech level 10 only.

Extragalactic Star Drive

Unlimited range. The Star Drive is the pinnacle of space flight technology. It folds the distance between two distant points, thus bringing the source and destination points together. Travel in this fashion is instantaneous.

Distances greater than 1000 parsecs require 1 hour. Since the ship has no intrinsic velocity (it's stationary while it teleports), the spatial compressor can instantaneously stop or change direction and thrust vector without any manoeuvring whatsoever. Tech level 11 only.

Exotic Drives

All Drives presented below are well beyond normal science fiction and only available in Tech Level 11 or higher.

Accretion Drive

Also known as the "rubber band" principle. You have a rubber band looped around your right index finger, then you take your left index finger and stretch the rubber band. Then let go of the rubber band with your right index finger. The rubber band hasn't actually moved (in the normal sense), but now it's on your other hand. Apply this principle to a spaceship moving through space.

Astral Drive

A form of dimensional travel within the same universe. Since the Astral plane is connected to every part of the universe, any point in real space can be reached almost instantaneously by a brief trip through Astral space.

Chronal Drive

Simply a Drive for travelling through the Chronoverse or time.

Parallax Drive

The ship doesn't actually go anywhere, it just shifts over to a universe where you're already at your destination. From there you can then shift back into your own universe. Of course some universes are more dangerous than others.

Quantum Drive

This involves the ship travelling backward in time to a point where the universe is sufficiently small that your starting and destination points are close to each other. You then move to your destination point and return to your original time zone.

The problem is that you have to get your position in the small universe exactly right, or you might be two or three galaxies away from where you want to be. Then of course there's the various temporal hazards.

Transmat Drive

Simply matter/energy/matter conversion. The object/ship/person is converted into pure energy, zips across space faster than light and is received and converted back, or converts itself back (ships drive) into matter again. The idea is teleportation and believe it or not it's not that improbable, just very hard to get right.

Additional Drive Information

A little more information by AJ Pickett and Joshua Bell to explain various space travel concepts.

Fold Drives

The following scenarios present themselves as space folding methods;

1. The vessel creates a wormhole and travels through it to another location.
2. The vessel instantly swaps places with another object at a distant location, it must be exactly same mass for it to work.
3. The vessel brings two points in space together, co-existing in both locations for a brief moment.

Jump Drives

Another spatial distortion effect causing the sheet of space/time to ripple, creating peaks and troughs that the ship can skip across, kind of a skipping stone on the pond of space. The range and propagation rate of this effect determines how long it takes before the Jump drive can move. The enormous energy charge takes a while to generate and very tricky navigation requires a big computer to work out, but travel between two locations can happen very quickly.

With the ship appearing and vanishing in a stuttered fashion across space, the crew seeing the universe in a series of flashing teleports, speeding along from point to point and ignoring the areas in between. Normally local curvature of space caused by massive objects and gravity effects can prevent the safe use of a jump drive, but they are great across the void between stars.

Some Jump drives are capable of dropping in and out of intersecting subspace wormholes, navigating the contorted space using pure mathematics, because the reality outside the ship is beyond the ability of the senses to understand. One miscalculation and the

ship drops into a black hole or becomes trapped in a recursive time loop.

Subspace Drives

The best explanation is that subspace is the substrate within which our universe exists. A subspace field is either a forced or natural intrusion of this domain into our own space, altering the behaviour of things within our space-time. The subspace barrier is the albeit flimsy dividing line between the two continuums. Manifold is a term used to describe the form our own universe takes when viewed from a higher (theoretical) dimension.

This is also called a deeper level of subspace; another universe which is connected to ours by subspace. Whenever our space-time is distorted or torn, or large amounts of energy released (explosions) there are subspace effects; wormholes and Transwarp Conduits are good examples where subspace plays a part in the effect.

Subspace fields (the kind that move starships around) are intentional manifestations of subspace in our space-time, caused by the controlled release of energy in a warp field coil. These fields have many effects, often depending on the intensity.

* They leave subspace distortions behind even when they're gone.

* An object placed in a subspace field has a reduced inertial mass relative to things outside the field.

* A symmetrical field ("Warp bubble") with enough power can create an entirely new universe, but it may not be stable.

* An asymmetrical field can propel the generating ship at the speed of light; nested fields propel the ship at the speed of light relative to the field beyond.

- * A subspace Soliton wave can carry a ship at the propagation speed of the wave.
- * A field can be embedded in an object.
- * Overlapping static warp shells can create an artificial subspace barrier in a localized region of space-time.

You can think of subspace as being the "medium" in which our space-time exists. The nearest parts (nearest being measured by the energy it takes to access them) are tightly coupled to our own universe, and can be thought of as being mapped to our space-time.

This is what sensors generally read, and what the subspace fields of warp drive are interacting with. Slightly deeper parts can connect points in our universe to others. Wormholes and Transwarp Conduits are this sort of thing. Deeper still are the "untamed wilds", and, even further down are entirely separate universes, all held together by subspace.

Subspace is not in an alternate reality, or "place", or space-time where things go or at least, they don't go in the world of Star Trek. It is not entered by a starship at warp. A ship creates a subspace field which acts like another universe very tightly coupled to our own.

If I was inside such a field and you were outside, we could conduct a conversation, shake hands, etc. But when the field is powerful enough and asymmetric, it is propulsive.

Nested decoupling fields magnify the effect considerably. But the ship still interacts with everything in our universe, and vice versa, as the level of subspace in which the field exists is so tightly coupled to our own that it appears no

"fancier" than say a magnetic field if you're looking closely at it.

The weakest subspace fields do appear very similar to traditional fields, like magnetic fields. They have associated particles Tetryons and Verterons which are only of importance when dealing with subspace.. basically Verterons mess up an equipment trying to create or manipulate subspace, and Tetryons are only stable within subspace but highly unstable in normal space.

To keep Special Relativity happy subspace doesn't need to follow the rules of relativity. Subspace might have a unique reference Hull and everything enclosed in a subspace field has the reference Hull of subspace.

Warp Drives

In the world as we know it, nothing but sub-atomic particles have been found to travel faster than light, so to move ships the warp drive creates a warp field, a subspace "bubble" that changes the nature of time, movement and gravity around the ship. Using warp coils very large amounts of energy and very careful engineering, the ship can attain speeds many times that of light. A powerful, asymmetric subspace field is established around the ship by the warp nacelles.

The field is composed of nested layers each pushing against the one beyond it. This drives the ship forward at a superluminal velocity. The nacelles are powered by a tuned plasma stream from the warp core Matter/Antimatter Reactor (M/AMR). Injectors feed the plasma into warp field coil segments at specific times, causing pulses to run the length of the nacelle, front to back. This peristaltic

flow causes the push of the nested warp fields, and moves the ship forward.

The warp field wraps around the ship in a two-lobed bubble, with the locus at Main Engineering (by design). Meanwhile the subspace field reduces the inertial mass of the ship aiding in manoeuvring. In fact a small subspace field is kept around the ship at Impulse speeds, so the Impulse drives have less mass to push around. However this is only a side effect and is NOT the mechanism used to allow FTL travel.

Travel Times (basic)

Below is a chart of space travel times as seen by an outside observer. The distances shown are for astronomical units (AU), light years (LY), and parsecs. The times shown represent how long it would take to cover each measured distance using a particular form of drive. There is a more detailed table later.

Chemical Drive

1 AU	5.78 days
1 LY	1000 years
1 Parsec	3270 years

Ion Protolight Drive

1 AU	24.96 minutes
1 LY	6 years
1 Parsec	17.30 years

Impulse Drive

1 AU	16.64 minutes
1 LY	4 years
1 Parsec	13.08 years

Antimatter/Warp Drive (at warp 1)

1 AU	0.32 seconds
1 LY	5.78 hours
1 Parsec	18.84 hours

Hyperspace Drive (at hyper 1)

1 AU	0.17 seconds
1 LY	3.21 hours
1 Parsec	10.12 hours

Intergalactic Jump Drive (at jump 1)

1 AU	0.001 seconds
1 LY	0.06 seconds
1 Parsec	1 second

Extragalactic Star Drive

1 AU	0.00001 seconds
1 LY	0.0001 secs
1 Parsec	0.001 secs

Subspace Radio

1 AU	0.05 seconds
1 LY	52.60 minutes
1 Parsec	2.87 hours

Step 7: Equipment

This section covers all the various miscellaneous yet still necessary equipment for starships.

Advanced Controls

These are touch screen controls which can be added to any basic control type. Commands and related functions are also linked so that multiple commands can be achieved via a single command initiation.

Astrogation Computer

Used for plotting and navigating jumps and standard manoeuvres.

Atmoprobe

Missile type sensor probe which gradually descends through the atmosphere. It is equipped with a standard suite of instruments to detect and analyse all normal EM and subspace bands, organic and inorganic chemical compounds, atmospheric constituents, and mechanical force properties.

It also includes varying degrees of telerobotic operation capabilities to permit real time control and piloting of the probe. This permits the investigation team to remain on board the starship while exploring what might otherwise be a dangerous hostile or otherwise inaccessible environment. 500 HPs with a maximum speed of Mach 30.

Atmospheric Shielding

Additional coating to the hull which enables a ship to enter an atmosphere at high speed.

Automatic Pilot

The robocruise automatic navigation system has the capability to plot and control travel to any destination within a

system. It “kicks in” whenever the pilot is unable to fly the starship. An autopilot system isn’t as good at avoiding attacks as a living pilot, but it’s better than nothing.

Larger vessels have more adaptive autopilot systems than smaller ships (although this increased sophistication doesn’t outweigh the penalties associated with the ships’ larger sizes).

Automated Hull Sealing

All hulls have an automatic sealing system, fitted as standard. It is comprised of two separate layers of resin under high pressure in the hull. When the layers are breached the substances expand and mix to form a very durable foam-like patch. This prevents the whole hull being explosively decompressed from a single shot. It repairs 50 HPs per round.

Auxiliary Controls

Many starships but not all contain auxiliary ship and mission control stations. These stations do not require constant attention and are only manned when necessary. Two science stations provide real time data to the command personnel and are used by mission specialists who have to coordinate activities with the bridge. The Mission Ops station provides support to the Ops officer and coordinates secondary objectives.

The Environmental Systems station allows monitoring and control of the support systems aboard a starship and can serve as a deputy operations management station in a crisis. The Engineering systems’ monitor duplicates the Chief Engineer’s primary status

displays from the Main Engineering section.

Basic Conn

The responsibility for actual piloting and navigation of a starship lies with the Flight Control Officer or Conn. Receiving instructions directly from the commanding officer the Conn’s duties include: navigational references and course plotting, supervision of automatic flight operations, manual flight operations, positive verification, and acting as Bridge liaison to the engineering department.

While these functions are heavily automated their importance to the safety of the ship and the missions at hand demands that an officer be assigned to oversee the Conn at all times.

Basic Ops

The Operations Management Officer normally referred to as Ops is responsible for the coordination and scheduling of resources and hardware to the various missions being performed aboard a starship. The Ops panel on the bridge displays a continually updated list of all current major shipboard activities. This information is used to evaluate the current state of the ship’s activities so priority decisions can be made.

For example if a science department is using a sensor array and an alert situation arises the Ops will have to divert the science scan from the main sensor array to another available system.

Basic Tactical

Defensive Systems Control and starship internal security are the duties of the Tactical Station (Tactical for short) located near the rear of the bridge. This

position gives the Senior Tactical Officer an unobstructed view of the main viewer and the command stations below.

Tactical security coverage ranges from low-level crew safety to full counter-intelligence measures against sabotage or terrorism. External security systems (defensive shields and weapons) are generally controlled from the Tactical station as well as sensor arrays, probes, buoys, and tractor beam systems.

Beamer Cooling Booster

Some find their normal laser cooling equipment inadequate. Since lasers cut out when they overheat this device is a bonus.

Boarding Tube

A boarding tube is similar to a docking clamp except that it is made lock onto any portion of a ship and create its own door. It uses a laser bore to accomplish this task, it can cut through the thickest armour in only a few seconds. The tube latches onto the hull of a ship with a powerful electromagnet and then proceeds to bore through it with the laser.

While cutting the system requires 2 MW, afterwards only 0.5 MW are needed to charge the electromagnet. The boarding tube comes in only a retractable version and can be fitted to any of the standard airlocks, it can act like a regular docking clamp. It can cut D6 x10 HPs per round and has 200 HPs.

Cargo Bay

Each cargo bay space is equal to 25 cubic metres of storage space.

Cargo Bay Life Support

Superb environment control, including deodorizer and choice of four fresh air scents. Needed for transportation of live animals and slaves.

Cloak

The Cloaking Device is something of a technological Wonder, through a process of a special device, which emits a light refracting field around the vessel, effectively bouncing photons away from the hull and making the space where the vessel occupied look empty.

A lot of energy is required to use a cloaking device and it is quite a fragile piece of machinery, also while active all but the most crucial systems are run on minimal power. While cloaked a vessel can have no shields active and may not fire any weapons. The actual effect of a ship being cloaked is to provide it the benefit as if being 100% concealment which means all attacks against it are at -5 to Thac0 and any that would normally hit have a 50% chance of missing anyway. Military only.

Colony Module

A Colony module is designed so that it can be easily deployed from a ship, dropped from a hold into orbit where a chute deploys for safe landing, upon hitting ground the module activates and deploys. Alternatively a vessel with atmospheric capability can land and deploy the module that way. Simply put it is an automated, self sufficient habitation designed to be modular and each capable of connecting to up to four other colony modules in order to create larger facilities and habitations.

Each colony module deploys in first stages, the first stage or "module Stage"

as it is known is how the module first appears a twenty foot cubed box, with an airlock on each side. Upon being deployed stage two is initiated, in this stage known as "Habitation stage" from each side of the cube an eighteen feet high, eighteen feet wide section extends outwards ten feet of each of the four sides, locking into place.

At this point the final stage begins known as the "Activation" stage, from the top of the cube an eighteen feet wide and long section ten feet high extends upwards, and from that another eight feet by eight feet section ten feet high extends and also locks into place. From this third raised level a telescopic mast some thirty feet in height extends in three parts upwards locking into place, from the end of which a solar array splays out and locks into place like a Chinese fan.

Finally from the central lower section a ten feet high radio antenna extends upwards. At this point the solar panels activate and begin powering the battery, and in turn activate the water purifier, lights, life support and so forth. A Colony module can house and work 10 people, and the module can provide adequate power and waste recycling to keep them alive indefinitely, the only thing it cannot do is provide a source of food, so if none is present where the module is deployed a source of food must be sought.

Computer Core

Probably the single most important operational element of a starship is it's main computer system being responsible in some way for most every aspect of the ship's operation. The heart of the system is a set of three main processing cores

which incorporate a series of miniature subspace field generators to allow the processing of optical data at rates faster than the speed of light.

The computer cores are redundant, so any one can handle the computing load of the entire ship should the need arise. An intricate optical data network connects the cores with virtually every component on board the ship and a subspace link is maintained with hand-held or remote devices needing computer access.

Cryogenic Chamber

A Cryogenic Chamber is a special room filled with sophisticated machinery designed to monitor and sustain the cryo chamber contained within. Any who enter are frozen reducing bodily functions to a bare minimum. While in cryogenic stasis an individual only ages one day out of every year that passes.

Docking Clamp

A rigid housing that can lock onto the outside of another docking clamp or an ordinary airlock of the appropriate size. It holds pressure and allows occupants to travel between ships without a vacc suit. There are two types, fixed and retractable. The fixed type is mounted outside the ship and adds no volume.

The retractable type telescopes out of the ships hull so it takes up a small amount of volume. Each type is made to latch onto a certain size of airlock so it must be purchased in appropriate sizes. The retractable version is usually longer. They are pressurized upon docking, have artificial gravity but little armour (although it can be added). Fixed have 200 HPs and retractable have 100 HPs.

Docking Hatch

A special airlock designed to connect with another of the same type (similar to the docking clamp but minus the tube). Each have 100 HPs.

Drive Cloud Analyser

Determines the destination and the exact time and date of arrival of ships by analysing the residual space time disturbance left behind after a jump. You will also be told the mass of the ship which has left or is about to arrive.

Drive Disruptor

Causes any ship with warp or jump engines within 500kms to misjump and fall back into normal space.

ECM

Short for Electronic Counter Measures. A clever device this, as it causes detonation of all activated Homing Missiles in range (including your own).

ECM Decoy Probe

This rare and sought after probe includes an array of transmitters including a Variable Transponder which are calibrated to broadcast an electromagnetic signature identical to that of the launching craft. This probe makes it appear as if two identical ships are in the area. Each probe has 100 HPs and a maximum speed of Mach 20.

Electromagnetic Detection

One of the broadest passive sensors the electromagnetic detection sensor can detect radar, laser, microwave, radio, and all other electromagnetic frequencies. The range of this sensor is two times that of the maximum range of the source but the sensor must be in the path of emission for it to be detected if it is a directed emission, such as a laser.

Of course if the emission cannot travel through obstacles such as planets then the sensor cannot detect an emission from the other side of the obstacle. The only way to hide from this type of sensor is to not generate any electromagnetic emissions, which may be difficult for some ships.

Elevators

Either passenger or cargo lifts. Passenger lifts can hold up to half a ton and Cargo lifts can hold up to 10 tons.

Emergency Beacon

1 AU range lasting 1 year with an emergency SOS repeater.

Energy Booster Unit

Boosts the recharging rate of all Shield Generators fitted by 10%.

Escape Pod

1 person escape capsule for those sticky moments when a fast exit is prudent. Escape pods are capable of limited flight and have enough fuel and power for limited manoeuvring. All escape pods have food and water, power and air sufficient to last four weeks in space. Each escape pod also includes the following; 2 Med kits, a water purifier, filter masks, survival kit, a 1 man temporary shelter and 2 flare guns each with 5 flares.

All Escape Pods also have an automatic Emergency Signal Transponder which transmits identity and location telemetry constantly so long as it's solar battery can receive enough light to keep it activated.

An Escape Pod is capable of independent movement and has a speed of 100kph, and it has enough fuel for 5

manoeuvres should they be necessary. If it does fall into a planetary orbit it does have integral heat shield and can deploy a chute to allow a safe descent.

Factory Module

A factory module endows a ship with the ability to turn raw materials into some finished product. Exactly what can be constructed depends on the type of factory as determined at the time of purchase and by the size of the vessel which should be given due consideration.

But autofactories for armour, weapon, robot, vehicle, fighter, pharmaceuticals or even shuttle construction are not unfeasible. Each autofactory requires raw materials in order to function.

How much raw materials an autofactory needs in order to produce an item is based on the item itself but usually unless the GM specifies otherwise 25% of the market value of the item you seek to produce in raw materials is needed to produce one item of that type, which can then be sold on at market price.

One other thing is needed in order to be able to produce an item and that is the Design Schematic, without this an autofactory simply does not know how to produce the desired item.

Galley

The standard galley is adequate for up to ten passengers and crew. It includes a kitchen and dining area. The seating area can be upgraded from standard to luxurious by doubling the cost.

Grappler Mags

Grappler mags attach to a starship in much the same way as any standard

weapons system but provide the ability to tow an object rather than do damage. Grappler mags feed fire control data to the main computer and get targeting data from the ship's sensors.

The grapppler mag is a large, metal disk which magnetizes and demagnetises on command, attached to a length of heavy-duty tow cable. This disk is propelled out from the starship at great speed towards its target, magnetizing itself an instant before impact and then firmly connects itself to the metal object which it is intended to tow.

The line can be drawn in or let out as much as necessary (up to the line's maximum length of 150 metres) and the disk can depolarise upon command from the ship. Grappler mags are used in salvage operations, clearing debris from a battlefield, and can also be used to tow in a disabled starship if necessary.

The advantages of a grapppler mag over a tractor beam are many. Grappler mags require much less energy and can be placed on a starship as small as a starfighter. They produce no energy signature and may not be detected by sensor sweeps when stealth is necessary.

Grav Plates

Internal artificial gravity. With the mastery of gravity manipulation technology it is possible to build a system that can artificially generate gravity within a ship or station without the need to spin the ship. The most advanced systems of this type can generate gravity on the surface of the ship as well as inside the ship.

Hangar

A hangar provides docking space and maintenance facilities for any size 2 vessel. Part of the hangar includes hangar bay doors to the exterior of the vessel.

Hardened Circuits

The ship's electrical and computer circuits have been hardened to withstand the effects of EMPs.

Holding Cell

Standard holding cells are designed to incarcerate one prisoner (although they can be larger). The cells include security monitors and basic barred gates which have electronic locks. They have beds which retract/extend from the wall at the touch of a button and a small sink and toilet facility but little else.

Hull Autorepair System

A large piece of equipment which is generally only fitted to larger ships. Exactly how this works is a trade secret but it does entail placing many microbots in the hull reinforcing channels. It repairs 100 HPs per round

Hydroponics

Hydroponics rooms can be anything from rooms which create recycled nutrients paste from human waste and other organic by products to ship board gardens but whatever their form the intent remains the same.

A Hydroponics bay are there to provide consumables enough to sustain a ships crew and passengers. Every ship of Size Class 4 or higher must have one Hydroponics bay for every full 50 passengers and crew or fraction thereof.

This ensures adequate consumables are available at all times and also covers water recycling.

Inertial Compensators

Allows high G manoeuvres while negating the effects of inertia so the occupants have no sensation of motion. This system generates a controlled series of variable-symmetry forcefields that serve to absorb the inertial forces of space flight such as violent manoeuvres or sudden stops which would otherwise cause fatal injury to the crew.

Interior Lighting

Includes normal lighting, infrared lighting (for during combat) and emergency (dimmer) lighting.

Internal Security Systems

Internal security systems are there for those ships which expect trouble and may face the possibility of being boarded. They are also there for vessels like prison ships, diplomatic transports and so forth where onboard security is a definite issue. There are a number of Internal security packages all of which offer different options as follows:

Basic Security; this provides numerous onboard cameras, and the ability to channel an electrical charge into the floor of the ships airlocks which causes D10 electrical damage each round unless the target has some form of protection or insulation.

Intermediate Security; this provides all of the above, plus microphones. In addition the vessel is compartmentalized with heavy duty blast door at major intersections of the vessel. These doors are 200 HPs, allowing each compartmentalized section to also be air

tight and thus in the case of explosive decompression only lose access to that breached compartment. This also means that via the environmental control a ships captain can also drain the air out of a specific section of the vessel.

Advanced Security; this provides all of the above in addition to this the vessel now has at least one of the following mounted in each corridor -
 Electrified floor (does D10 electrical damage)
 Retractable laser Rifle mounts in the walls (3D10 damage).
 Sleep Gas dispensers (fall asleep for 30 minutes)
 Force Fields (These cannot be crossed unless disabled first).

Laboratory

For analysing biological, atmospheric and geological samples. Laboratories are almost always catered towards one of the sciences (biology, physics, chemistry, anthropology, astrophysics, psychology and so on). They are most commonly found on science vessels or vessels which are commonly out in unexplored territory or exposed to new things. A laboratory is for study, analysis and cataloguing as pertinent to the relevant science covered by it.

Landing Drone

Larger version of atmoprobe which also tests soil and collects cultures.

Landing Gear

Landing Gear is rather self explanatory and is installed within a vehicle so that it can be extended or retracted as needed should a vessel be about to land.

Life Boat

10 person Escape Pod with supplies for 1 month.

Life Support

Provides all the elements necessary to keep the ship's inhabitants alive including food storage and preparation, water, waste processing and disposal. Also creates a breathable and suitable atmosphere anywhere within the ship which can be reconfigured.

Magnetic Shield

Prevents the effects of radiation, vacuum, micro debris, etc from entering or affecting the ship.

Medlab

Fully equipped medical facilities for treating 1 person per ranking of lab.

Military ECM

This higher specification system can also destroy the Smart Missile. Only obtainable at larger Shipyards.

Mining Drone

This heavy duty robot prospect, mines and refines minerals for you.

Navigation Shields

This is a precautionary device used by starships entering combat, asteroid belts, gas clouds, and uncharted regions. Basically it insulates the ship from contact with minor asteroids, meteorites, junk and other forms of space debris that might collide with the ship. Not effective against any form of explosive or weapons.

Passenger Cabin

Suitable for one person. It comes with life support, food dispenser and holovid screen. An extra facility is the automatic decor control which changes in order to

compliment the mood of the occupants. It is activated by sensors of heat and pheromones. Two or more can be bought and connected to make a larger room to contain more people. A first class cabin must be at least 6 meters square. A journey class cabin must be at least 4 meters square.

Radar

Radar systems use both radio waves and laser light to send emissions out from the ship where they will bounce off of targets. The bounced waves become signals that the sensor can track with a high degree of precision. Unfortunately radar systems travel at the speed of light, so at long ranges the information returned to a ship can be quite old after the time it took the emissions to travel to the target and then back again.

Also like radio communications, the radio waves used by the a radar system can be easily blocked, although while the laser light system is much harder to block in this method it can be blocked as well. 5000km radius, able to track up to 200 targets.

Radar, Tachyon

20,000km radius, able to track up to 1000 targets.

Radio, Subspace

A subspace radio is used for sending messages between distant planets and star systems. Subspace communicators send coded tachyon beams that must be broadcast from very carefully aimed dish antenna to hit their target planet or system. A subspace message crosses 1 light year per hour. However subspace radios mounted on ships use the ship's power supply and do not need their own battery.

Radio, Videocom

This communication device broadcasts a combined picture and voice message that travels at the speed of light. It is useful over relatively short distances in space, and when communicating between points on a planet or from an orbiting vessel or station to the planet. A videocom message takes one second to travel 300,000 kilometres.

Ramscoop

These devices act as magnets for hydrogen. When combined with a fusion engine, ramscoops allow a ship to refuel itself. A ship can gain one day of fuel per day of travel when moving between planets. Higher speeds mean faster refuelling at the GM's discretion.

Recycler

A recycler unit reduces the rate of a ship's food and water store consumptions by a factor of 4.

Remote Handling Arms

These advanced lifting mechanisms are usually fitted to the outside of a craft and when unfolded from their protective cowling are used to manipulate salvage, clamp onto neighbouring ships, etc. The cost of each pair of arms includes an external camera which shows the operator what the arms are doing.

Repair Drone

Repair drones are small spiderlike robots that rapidly deploy to damaged sections of a ship's outer hull. They are programmed to repair damage quickly and efficiently but inside and out. In non emergency they can also be used to maintain the vessel.

Repair Nanites

The final refinement of damage control systems, the nanite repair array consists of numerous nodules filled with nanites (microscopic robots) scattered throughout the ship. The nanite repair array can repair a ship with negative hit points; however, not even nanites can repair a destroyed ship.

Running Lights

These serve to both illuminate the outside of the ship when its dark and highlight its name, registration, etc.

Scanner

Scans for information on a targeted ship including equipment, weapons, defences and lifesigns.

Screen Generator

These generators are specifically for powering defence screens. One generator is required for each screen. Additional generators may be tied into a screen and increase its regeneration rate by +100% each time.

Self Destruct System

A Self Destruct System is a means by which a vessel can be destroyed by an explosion automatically. This is most often installed in vessels where the owner does not wish their identity to be discovered in the event of capture, or for certain suicidal organizations who ram a vessel and self destruct at the last instant ensuring that they take the enemy with them.

It is also installed in vessels that are one of a kind in order to prevent them from falling into enemy hands.

A Self Destruct almost always requires two verbal command codes, one from

the captain and one from the executive officer. Some larger vessels choose to increase the number of codes necessary to activate a self destruct, but once activated the ships captain then determines a countdown until the destruction this can be anywhere from zero rounds (instant) to 24 hours.

The Self Destruct works by causing the power plant of a vessel to feedback upon itself until it explodes. It can be deactivated once set but once again requires verbal codes from the main officers onboard. It can also be overridden by a skilled computer operator with access to the ships computer. Damage varies according to the size of the vessel and what it had on board.

Sensor Array Class I

This array includes radar, hi-res video, and infrared heat sensor units. It can perform all of the following functions: Ascertain the location and type (ultralight, light, and so on) of all visible ships on the battlefield.

Identify and ascertain the location of all visible hazards on the battlefield (such as asteroids and mines). Analyze the chemical composition of a planet's atmosphere (the ship must be orbiting the planet).

Sensor Array Class II

This array incorporates hi-res video, infrared and electromagnetic sensors, and ladar detection units. (The ladar uses low-powered laser beams to locate targets.) It can perform all of the following functions:

Ascertain the location, type (ultralight, light, and so on), and subtype (fighter,

destroyer, and so on) of all visible ships on the battlefield. Identify and ascertain the location of all visible hazards on the battlefield (such as asteroids and mines).

Identify all weapons on a specific ship (number and type of weapons present), including their organization into batteries (but not fire links). Ascertain the presence of any or all of the following systems on a specific ship: grapplers, magnetic field, point-defence system.

Identify a specific ship's armour type. Analyze the chemical composition of a planet's atmosphere (the ship must be orbiting the planet).

Sensor Array Class III

This array includes hi-res video, electromagnetic sensors, multiband radar, spectroanalyzers, and mass detectors. (A mass detector locates objects via their gravitational signatures.) It can perform all of the following functions: Ascertain the location, type (ultralight, light, and so on), subtype (fighter, destroyer, and so on), and mass of all visible ships on the battlefield.

Identify and ascertain the location of all visible hazards on the battlefield (such as asteroids and mines). Identify all of the weapons on a specific ship (number and type of weapons present), including their organization as fire-linked weapons and batteries.

Ascertain the presence of any or all of the following systems on a specific ship: grapplers, magnetic field, particle field, point-defence system, tractor beam. Identify a specific ship's armour type. Identify the type of engines a ship has.

Determine the number of life forms aboard a specific ship.

Analyze the chemical composition of a planet's atmosphere (the ship must be orbiting the planet). Analyze and chart the topography of a 1,600 square kilometre area on a planet's surface (the ship must be orbiting the planet). Determine a planet's prevailing meteorological conditions and weather patterns (the ship must be orbiting the planet).

Sensor Array Class IV

This array includes hi-res video, electromagnetic sensors, spectroanalyzers, multiphase radar, and mass detectors. It can perform all of the following functions: Ascertain the location, type (ultralight, light, and so on), subtype (fighter, destroyer, and so on), and mass of all ships on the battlefield. Identify and ascertain the location of all hazards on the battlefield (such as asteroids and mines).

Determine a specific ship's design specs (engines, defensive systems, sensor systems, communication systems, and weapons, including fire-linked weapons and batteries).

Detect the presence and location of ships and mines using active cloaking screens (targets still gain the benefits of total concealment). Determine the number and type of life forms aboard a specific ship ("type" refers to the creature type). Analyze the chemical composition of a planet's atmosphere (the ship must be orbiting the planet).

Determine the number and type of life forms within a 6,400 square kilometre region on a planet's surface (the ship

must be orbiting the planet, and “type” refers to the creature type). Analyze and chart the topography of a 4,000-square-mile area on a planet’s surface (the ship must be orbiting the planet). Determine a planet’s prevailing meteorological conditions and weather patterns (the ship must be orbiting the planet).

Sensor Array Class V

This sensor array can perform all of the following functions: Ascertain the location, type (ultralight, light, and so on), subtype (fighter, destroyer, and so on), and mass of all ships in the star system. Identify and ascertain the location and trajectories of all hazards in the star system (such as asteroids and mines).

Determine a specific ship’s design specs (engines, defensive systems, sensor systems, communication systems, and weapons, including fire-linked weapons and batteries). Detect the presence and exact location of ships and mines equipped with cloaking screens, and negate the effects of stealth screens, displacers, and cloaking screens.

Determine the number, type, and species of life forms aboard a specific ship (“type” refers to the creature type). Analyze the chemical composition of a planet’s atmosphere (the ship must be in the same system as the planet).

Determine the number, type, and species of life forms on a planet’s surface (the ship must be orbiting the planet, and “type” refers to the creature type). Analyze and chart the topography of a planet’s surface (the ship must be orbiting the planet). Determine a planet’s prevailing meteorological conditions and

weather patterns (the ship must be in the same system as the planet).

Slave Circuits

Slave Circuits are a mean by which a vessel can be installed with the relevant machinery to operate it remotely in much the same way as a Remote operations unit allows a Robot to be operated remotely. In such circumstances a controlling unit or vessel requires a Remote Operation workstation or if multiple vessels are being operated it is even feasible to have each controlled by an individual remote operator.

Solar Shields

Protects the ship and all within from the effects of high radiation planets or nuclear areas.

Stairway/ Ladder

For standard use or in emergencies when elevators are not functioning.

Tractor beam

This is a powerfully energized electromagnetic beam which projects a short-range gravitational “tether” that latches onto or immobilizes a single target, usually a ship or unattended object. The object is held just within the beam's range and can be drawn in at a rate of 2 kms per second. The beaming ship must cut its speed to zero before it can draw in the tractored object.

Translator

Translate known languages instantly, unknown languages require 1 day of continuous input (-1 hour per successful roll of translator).

Transponder

These are designed to carry information on the registry codes, owning faction and home port of the ship, thus allowing the rapid return of salvaged vessels. Any ship which does not return a transponder request can be assumed to be a pirate vessel and may be attacked with no legal consequences.

Transponder, Variable

A variable transponder is a highly illegal item which can be configured to transmit a false ID code. This piece of equipment is invaluable to smugglers, pirates and other spaceship owners with extra-legal activities as it transmits a false, usually squeaky-clean, identification signal.

Transporter (Personal) Orbit to Surface

Transporters are matter-energy conversion devices that take an object or being and transform it into a pattern of phased energy that can be transmitted as a complex trans-barrier signal through the first level of subspace (or hyperspace) domain to a set of desired coordinates. At the desired coordinates, it is reintegrated into its original structure. Normal range is 40,000 km. The range for emergency or shuttle based Transporters is 15,000 km.

Transporter (Cargo) Orbit to Surface This teleportation device works like a personal teleporter except it is designed for Cargo or large numbers of people. Cargo Pad's are almost always installed into the cargo holds of a vessel. Each Cargo Teleporter can teleport up or down up to 5 tons or 100 people in close proximity in any one use.

Water Flotation System

Although starships are designed to work in non-atmospheric environments very few are designed to resist the pressures imposed on their hulls by immersion in deep water. This system of air-filled cushions allows the ship deploying them to maintain a neutral buoyancy if it is forced to land in water. The cushions are filled either from compressed air bottles (in emergencies), or using the ship's atmospheric hydrolysis life-support system to provide the air (for routine use).

Winch/Crane

This is exactly what it says, a winching mechanism fitted either inside a ship's cargo hold or externally and designed to lift or haul loads. The purchaser can choose how the crane is controlled, whether by directly supervised operation, or from the Engineering Section or Bridge of the ship.

Workpod

One person space going toolbox that enables a person to make repairs or perform construction work. It has 100 HPs, 4 mechanical arms, a welder, a riveter and any other modular tools as needed.

Workshop

Workshops are the repair bays aboard ship. If something needs fixing or replacing it is usually here that it is done. Basic machinery is present like drills, lathes, saws, raw materials, spare parts and so forth. Workshops however are not factories. Big constructions cannot be produced in them like vehicles and so forth.

However tools could be made, weapons, armour or robots etc can be constructed

providing the relevant parts or materials were available, but not in great numbers or speedily. Every ship of Size Class 4 or higher must have one Workshop for every full 50 passengers and crew or fraction thereof.

This ensures things are able to stay in good repair. Workshops can be combined together to create larger repair bays, if four are combined then vehicles can be repaired or modified within them.

Step 8: Defences

Screens afford additional shielding to the normal damage resistance of a hull.

More than one can be fitted at once and the effect is cumulative. They recharge from the ship's power system and each shield takes a fixed amount of time to do so. For example a large ship with ten screen generators will take the same time to recharge as a ship with one screen.

The ship with ten however will achieve the same defence as the ship with one screen in a tenth of the time because of the additive effect of Screen Generators. Energy Screens do not so much deflect attacks as absorb them, activating a field that neutralizes destructive energy entering it. However the field itself is neutralized when it absorbs the barrage. In this way the screen overloads and becomes useless after so many attacks.

Chaff

Chaff consists of millions of tiny strips of metallic fibre. It interferes with active sensors and smart missile tracking systems.

Energy

This screen affects Beam, Disruptor, Electron, Fission, Ion, Lasersonic, Maser, Meson, Particle, Plasma, Proton and Thorium energy weapons. Each screen can take 500 HPs damage per round and regenerates any lost HPs at a rate of 50 per round. However the screen cannot regenerate so long as it continues to take damage.

ICMs

Interceptor Missiles are small missiles which can be fired at incoming projectiles including other missiles. Each battery holds 15 which do D10 x10 each and a range of 100 metres.

Kinetic

This screen affects Autocannons, Kinetic Lances, Rail Guns, missiles, torpedos, bombs and any other form of kinetic attacks. Each screen can take 500 HPs damage per round and regenerates any lost HPs at a rate of 50 per round. However the screen cannot regenerate so long as it continues to take damage.

Point Defence Guns

Each is a cluster of 15 mini rail guns which can be fired at incoming projectiles including other missiles. Each cluster does D10 x20 over a 50 metre range.

Reflective Hull

Reduce damage from energy weapons by 10%, it is simply coated over any normal hull. It affects the same weapons as an energy screen.

Sandcaster

Projects a granular agent over a 10 metre diameter which obstructs light and interferes with beam weapons reducing damage by 25%.

Step 9: Weapons

Starship weapons fall into one of four categories: beam weapons, projectile weapons, missiles, and mines. Starship weapons require the Space Vehicle Weaponry skill to operate proficiently. Without this a gunner takes a -4 penalty on attack rolls made with starship weapons.

Beam weapons deal energy damage, usually of a nonspecific type. They range from weapons as simple as a high powered laser to monstrous devices capable of harnessing the fundamental forces of the universe.

Beam weapons draw power from a starship's power plant and are considered to have unlimited ammunition. Beam weapons are mounted on turrets or in banks that, coupled with the starship's ability to adjust its orientation, allow the weapons to fire in any direction.

Projectiles are generally solid slugs delivered to the target, where the velocity and density of the slug hopefully punch through the target's defences. The most basic projectile weapons launch a small hunk of metal at roughly the speed of sound; the most advanced can push around mountains or molecules at greater than the speed of light.

Starships have sufficient storage space to contain a virtually unlimited supply of projectile weapon ammunition. Like beam weapons, projectile weapons are mounted on turrets or in banks that, coupled with the starship's ability to adjust its orientation, allow the weapons to fire in any direction.

A missile is an explosive warhead fixed to a guided rocket and fired from a missile launcher. The type of warhead determines both the type and amount of damage. All missiles are equipped with guidance systems that negate the penalty for range increments.

Mines are immobile explosives that must be deployed to be effective. Mines are equipped with sensors to scan approaching ships and detonate when hostile ships draw near. Some mines also come equipped with cloaking screens and other defensive systems to conceal their presence. A starship must be equipped with a minelayer to deploy mines.

Accelerator

Damage: x10

Range in atmosphere:: -25%

Increases the damage of any energy based weapon by a factor of 10.

Available to military only.

Assault Missile

Damage: 2D6 x20

Range in atmosphere: 12,000 kms

The most common and standard missile type.

Autocannon

Damage: 2D6 x20

Range in atmosphere: 1000 metres

The smallest of the Rail guns more suited to ships of fighter size. It is an electromagnetic accelerator that fires tiny ball bearings at an extremely high velocity.

Beam Cannon

Damage: D10 x100

Range in atmosphere: 800 metres

Fires an intense, concentrated beam of light.

Bomb Dispenser

Damage: N/a

Range in atmosphere: N/a

The bomb bays and dispenser system are designed for the purposes of dropping bombs from orbit to a planet's surface. Such bombing runs can only be achieved from a relatively low orbit in order to guarantee any kind of accuracy. Bombs have no form of targeting or guidance, instead the computer aims from orbit and drops the bomb, all other bombs then scatter around the first. The smallest version holds 10 and it can be bought in increments of 10.

Disruptor Battery

Damage: 2D6 x100

Range in atmosphere: 2 kms

Fires an intense beam of alternating protons and electrons.

Electron Battery

Damage: 8D6 x20

Range in atmosphere: 1500 metres

Fires an electrical beam of negatively charged particles.

Electron Bomb

Damage: 4D6 x20

Range in atmosphere: N/a

As per Electron Torpedo.

Electron Torpedo

Damage: 4D6 x20

Range in atmosphere: 12,000 kms

Fired from a torpedo tube on impact the torpedo releases its enclosing magnetic field and it becomes a destructive electrical sphere of negative particles.

Fission Cannon

Damage: D12 x100

Range in atmosphere: 1500 metres

This cannon initiates a fission reaction and then directs the blast at the target. It

disrupts the molecular attraction that holds matter together causing said molecules to fly apart.

Ion Cannon

Damage: D8 x100

Range in atmosphere: 1 km

Fires an intense beam of ionised particles.

Kinetic Bomb

Damage: 2D6 x20

Range in atmosphere: N/a

The most common and standard bomb type.

Kinetic Lance

Damage: 10D6 x20

Range in atmosphere: 10 kms

The largest of the ship mounted gauss weapons. It creates a high-velocity stream of virtual particles simulating solid matter. The impact of these particles is quite destructive, rather like a collision with a solid object.

Lasersonic

Damage: D6 x100

Range in atmosphere: 600 metres

The simplest beam weapon, the lasersonic fires an intense, concentrated beam of light but is more suited to ships of fighter size.

Maser

Damage: D10 x100

Range in atmosphere: 1 km

A more concentrated and powerful version of the Laser. Masers channel an enormous amount of power through a linear antenna array, creating a broad-spectrum blast of energy that devastates the target with heat, light, and intense radiation.

Mass Driver

Damage: D100 x1000

Range in atmosphere: 100 kms

The mass cannon uses gravitic technology to “charge” projectiles with incredible gravitational energy, then hurls it at the target, where its increased gravitational pull causes it to slam into the target with the damage of a nuke but minus the radiation.

Meson Battery

Damage: D20 x100

Range in atmosphere: 2300 metres

Creates a point of decay at the target causing a high energy explosion.

Mine

Damage: D100 x100

Range in atmosphere: N/a

Mines are immobile explosives that must be deployed. Explode over a 100 metre radius.

..

Mine Layer

Damage: N/a

Range in atmosphere: N/a

This is designed to drop mines throughout space at predetermined intervals. It uses a rack dispenser arrangement where the mines are moved up to the hatch dispensed and the next one moves up into place. The smallest version holds 10 and it can be bought in increments of 10.

Any vessel with a mine layer can drop one mine per round with a distance between them equal to the distance covered by the vessel based on its speed. Typically vessels dropping mines slow right down in order to cover as much of the area with mines as they can, minimizing the distance between them. In this way if a mine explodes and

another mine is within the blast radius that mine too explodes and as a result the damage is increased for every mine exploded in addition to the original.

Nuclear Bomb

Damage: D100 x1000

Range in atmosphere: N/a

Nukes are larger than other bombs and only 1 may be carried per 50 metres.

Nuclear Missile

Damage: D100 x1000

Range in atmosphere: 12,000 kms

Nukes are larger than other missiles and only 1 may be carried per 50 metres.

Particle Cannon

Damage: 10D10 x14

Range in atmosphere: 1700 metres

Fires charged nuclei of protons, neutrons, or alpha particles at the target. Each particle accelerated to near light-speed.

Phaser Flare

Damage: 10D6 x20

Range in atmosphere: 12,000 kms

The most powerful of the torpedoes. It uses a phased version of electrons, protons and thorium upon detonation.

Plasma Bomb

Damage: 6D6 x20

Range in atmosphere: N/a

As per Plasma Torpedo.

Plasma Cannon

Damage: 10D10 x15

Range in atmosphere: 2 kms

Using a powerful electrical charge to white-hot plasma, this weapon then accelerates the plasma mass toward the target with the result is a bolt of incandescent plasma that can explosively vaporize objects in its path.

Plasma Torpedo

Damage: 6D6 x20

Range in atmosphere: 12,000 kms

Fired from a torpedo tube on impact the torpedo releases its enclosing magnetic field and it becomes a destructive fireball.

Proton Battery

Damage: 9D6 x20

Range in atmosphere: 1700 metres

Fires an electrical beam of positively charged particles.

Proton Bomb

Damage: 5D6 x20

Range in atmosphere: N/a

As per Proton Torpedo.

Proton Torpedo

Damage: 5D6 x20

Range in atmosphere: 12,000 kms

Fired from a torpedo tube on impact the torpedo releases its enclosing magnetic field and it becomes a destructive electrical sphere of positive particles.

Rail Gun I

Damage: 3D6 x20

Range in atmosphere: 1400 metres

Ship mounted gauss weapon. The higher the number the larger the cannon. Rail guns use a series of electromagnets to propel projectiles down a magnetic track. The projectiles are kinetic-energy weapons with no explosive charge, but at close ranges, they can still be quite devastating.

Rail Gun II

Damage: 4D6 x20

Range in atmosphere: 1500 metres

Rail Gun III

Damage: 5D6 x20

Range in atmosphere: 1600 metres

Rail Gun IV

Damage: 6D6 x20

Range in atmosphere: 1700 metres

Rail Gun V

Damage: 7D6 x20

Range in atmosphere: 1800 metres

Rocket Battery

Damage: N/a

Range in atmosphere: N/a

Missile storage and firing system which includes a launch rail. Each Battery holds 10 missiles but unlike the launch rack it can be reloaded as desired so long as any missiles remain.

Rocket Rack

Damage: N/a

Range in atmosphere: N/a

This is a one shot missile storage and firing system mounted externally on the ship's hull. Each Rack holds 5 missiles but cannot be reloaded once fired or altered until the ship has landed.

Thorium Cannon

Damage: 3D6 x100

Range in atmosphere: 2 kms

The most powerful of the laser based weaponry. It fires a blast of high-energy, faster-than-light particles at the target.

Torpedo Launcher

Damage: N/a

Range in atmosphere: N/a

Each launcher can hold up 1 torpedo per 10 metres size.

Weapon Mounts**Bay**

Large weapon mount able to move to point at the target.

Gun

Small mount able to move to point at the target.

Retractable

Any mounts smaller than very large which can be retracted back inside the ship when not in use.

Spinal

A fixed large mount which the entire ship is built around.

Turret

Moderate mount able to move to point at the target.

Assault Missiles, Torpedoes and Bombs

A missile is an explosive warhead fixed to a guided rocket and fired from a missile launcher. All missiles are intelligent with advanced electronic tracking systems and manoeuvring jets that allow them to pursue their prey relentlessly. They have a +4 to Thac0 and can attack once per round until they hit, are destroyed, or run out of fuel.

The guidance system works by attacking anyone the pilot has designated a foe prior to launching the missile. Even if the missile misses its target it may still damage him. If the target is caught within the blast radius it takes half damage. Missiles have a top speed of Mach 25 in an atmosphere.

Torpedoes are identical to missiles but are much larger and slower. They have a top speed of Mach 10 in an atmosphere.

Bombs are dumb weapons and cannot deviate to strike moving or alternate targets. There is no range as it depends upon the altitude from which it is dropped; the higher the altitude the longer the possible range of the bomb.

Appendix 1: Costs

Listed below are the costs for each piece of equipment. Prices may vary according to costs within the campaign and availability.

Size

The cost of size is equal to 5000 x ship size (total metres).

Armour

Soft Steel: ship size (total metres) x5000

Hard Steel: ship size (total metres)
x7500

Composite Alloy: ship size (total metres)
x10,000

Crystallion: ship size (total metres)
x25,000

Dwarf Matter: ship size (total metres)
x50,000

Bonded Dwarf Matter : ship size (total
metres) x100,000

Coherent Dwarf Matter: ship size (total
metres) x200,000

Nanofluidic: ship size (total metres)
x300,000

Armour

Promethium: ship size (total metres)
x300,000

Neutronium: ship size (total metres)
x400,000

Engines

Anti Gravity: 300,000

Batteries: 50,000

Fuel Cell: 10,000

Fusion: 200,000

Internal Combustion: 25,000

Nuclear Fission: 100,000

Solar Cells: 75,000

Turbine: 50,000

Drives

Manoeuvring Thrusters: 50,000

Chemical Drive: 50,000

Ion Protolight Drive: 100,000
 Photon Sail: 150,000
 Impulse Drive: 250,000
 Antimatter/ Warp Drive: 1,000,000
 Hyperspace Drive: 5,000,000
 Intergalactic Jump Drive: 10,000,000
 Extragalactic Star Drive: 100,000,000

Exotic Drives

Accretion Drive: 500,000,000
 Astral Drive: 500,000,000
 Chronal Drive: 1,000,000,000
 Parallax Drive: 500,000,000
 Quantum Drive: 500,000,000
 Transmat Drive: 1,000,000,000

Equipment

Advanced Controls: 10,000
 Astrogation Computer: 5000
 Atmoprobe: 40,000
 Atmospheric Shielding: ship size (total metres) x100
 Automatic Pilot: 10,000
 Automated Hull Sealing: 50,000
 Auxiliary Controls: 10,000
 Basic Conn: 5000
 Basic Ops: 5000
 Basic Tactical: 5000
 Beamer Cooling Booster: 10,000
 Boarding Tube: 100,000
 Cargo Bay: 30,000
 Cargo Bay Life Support: 1000
 Cloak: ship size (total metres) x10,000
 Colony Module: 50,000
 Computer Core: 10,000
 Cryogenic Chamber: 30,000
 Damage Control System: ship size (total metres) x100
 Docking Clamp: 5000
 Docking Hatch: 2000
 Drive Cloud Analyser: 10,000
 Drive Disruptor: 1,000,000
 ECM: 5000
 ECM Decoy Probe: 10,000
 Electromagnetic Detection: 20,000
 Elevators: 5000

Emergency Beacon: 5000
 Energy Booster Unit: 100,000
 Escape Pod: 50,000
 Factory Module: 100,000
 Galley: 20,000
 Grappler Mags: 10,000
 Grav Plates: ship size (total metres) x200
 Hangar: 100,000
 Hardened Circuits: 5000
 Holding Cell: 40,000
 Hull Autorepair System: ship size (total metres) x100
 Hydroponics: 20,000
 Inertial Compensators: ship size (total metres) x200
 Interior Lighting: 500
 Internal Security Systems: 20,000 for Basic
 40,000 for Intermediate
 100,000 for Advanced
 Laboratory: 100,000
 Landing Drone: 100,000
 Landing Gear: ship size (total metres) x500
 Life Boat: 75,000
 Life Support: ship size (total metres) x100
 Magnetic Shield: 10,000
 Medlab: 100,000
 Military ECM: 50,000
 Mining Drone: 200,000
 Navigation Shield: 10,000
 Passenger Cabin, First Class: 10,000
 Passenger Cabin, Journey Class: 5000
 Radar: 5000
 Radar, Tachyon: 25,000
 Radio, Subspace: 20,000
 Radio, Videocom: 30,000
 Ramscoop: 40,000
 Remote Handling Arms: 10,000
 Recycler: 10,000
 Repair Drone: 2000 each
 Repair Nanite: ship size (total metres) x5,000
 Running Lights: 1000
 Scanner: 10,000

Screen Generator: 50,000
 Self Destruct System: 5000
 Sensor Array Class I: 5000
 Sensor Array Class II: 10,000
 Sensor Array Class III: 15,000
 Sensor Array Class IV: 20,000
 Sensor Array Class V: 25,000
 Slave Circuits: 5000
 Solar Shields: 10,000
 Stairway/ Ladder: 1000
 Tractor beam: 500,000
 Translator: 1000
 Transponder: 2000
 Transponder, Variable: 5000
 Transporter (Personal) Orbit to Surface:
 5,000,000
 Transporter (Cargo) Orbit to Surface:
 1,000,000
 Water Flotation System: ship size (total
 metres) x200
 Winch/Crane: 10,000
 Workpod: 75,000
 Workshop: 20,000

Defences

Chaff: 5000
 Energy Screen: 200,000
 ICM Launcher: 50,000
 ICM Reload (per 15 cluster): 5000
 Kinetic Screen: 100,000
 Point Defence: 50,000
 Point Defence Ammunition: 5000 per
 reload
 Reflective Hull: ship size (total metres)
 x500
 Sandcaster: 10,000

Weapons

Accelerator: 1,000,000 per individual
 weapon
 Assault Missile: 10,000
 Autocannon: 10,000
 Autocannon Ammunition: 1000
 Beam Cannon: 50,000
 Bomb Dispenser: 10,000
 Disruptor Battery: 70,000

Electron Battery: 40,000
 Electron Bomb: 10,000
 Electron Torpedo: 20,000
 Fission Cannon: 70,000
 Ion Cannon: 30,000
 Kinetic Bomb: 5000
 Kinetic Lance: 100,000
 Lasersonic: 20,000
 Maser: 50,000
 Mass Driver: 1,000,000
 Meson Battery: 110,000
 Mine: 5000
 Mine Dispenser: 10,000
 Nuclear Bomb: 1,000,000
 Nuclear Missile: 2,000,000
 Particle Cannon: 80,000
 Phaser Flare: 40,000
 Plasma Bomb: 20,000
 Plasma Cannon: 90,000
 Plasma Torpedo: 30,000
 Proton Battery: 60,000
 Proton Bomb: 15,000
 Proton Torpedo: 25,000
 Rail Gun I: 20,000
 Rail Gun I Ammunition: 2000
 Rail Gun II: 30,000
 Rail Gun II Ammunition: 3000
 Rail Gun III: 40,000
 Rail Gun III Ammunition: 4000
 Rail Gun IV: 50,000
 Rail Gun IV Ammunition: 5000
 Rail Gun V: 60,000
 Rail Gun V Ammunition: 6000
 Rocket Battery: 10,000
 Rocket Rack: 5000
 Thorium Cannon: 100,000
 Torpedo Launcher: 5000

Make any weapon retractable: +5000

Appendix 2: Ship Types

Listed below are examples of the most common types of space and starships encountered in space campaigns. You and your GM are free to add more.

Agriculture Starship

These are among the most expensive ships to build and move because of the large amount of mass (such as water) that they must carry.

Food is grown hydroponically to produce as much as possible in the shortest time. They use solar energy from the stars but also have auxiliary power sources to provide the light and heat needed by the growing plants.

An Agriculture ship can support a number of people equal to its ship size (total metres) x 200. The cost of outfitting an agriculture spaceship is determined by multiplying the base cost of the materials needed to grow and tend the crops by the ship's size. The hull, drives, life support and other required systems must be purchased normally.

Assault Transport

Assault transports carry very few weapons relying heavily on other ships for protection. Instead they carry troopers, tanks and cargo.

Battlecruiser

These are the mightiest warships and can absorb considerable damage. The biggest disadvantage of the battleship is its extreme cost.

Carrier

Carriers serve as mobile bases for fighter squadrons. A carrier transports fighters to the scene of a battle, launches them, and recovers and re-arms fighters that

survive the battle. Because of the large amount of maintenance required by fighters, an assault carrier carries a large amount of crew members.

Destroyer

Destroyers are very similar to frigates, being only slightly larger and a bit less manoeuvrable but with greater firepower.

Dreadnought

A type of battleship but with less versatility. It is equipped entirely with large cannons.

Escort

Escorts very similar to frigates, being only slightly smaller and a bit less firepower but have greater manoeuvrability.

Exploration Ship

Exploration ships are civilian versions of scouts. They have the same performance capabilities but are usually unarmed. Instead of weapons they carry sophisticated computers and mapping devices for exploring the unknown reaches of the galaxy.

As travelling in unmapped regions is a very risky business (10 to 20% of all exploratory missions are never heard from again), exploration ship crews are kept as small as possible.

A wide variety of miscellaneous equipment can be carried by an exploration ship. Occasionally a large research starship will be outfitted and manned for an exploratory mission. This generally occurs when a standard exploration ship would be too small for the expedition's needs.

Fighter

Fighters and bombers are small attack spaceships. They are fast and manoeuvrable but easy to destroy.

Freighter

Freighters can be built in a wide variety of sizes, and most have much longer ranges than shuttles. These vessels can be used for many jobs. They are used to transport minerals from mining centres on asteroids or uninhabited planets to large processing centres. In star systems where several planets are inhabited, they may carry passengers between those planets.

Frigate

The frigate is the smallest of the warships serving as high speed patrols and as escorts.

Heavy Cruiser

Heavy cruisers are among the slowest and least manoeuvrable starships. They are being phased out by some races in favour of the faster light cruisers.

Light Cruiser

These ships tend to be fast and well-armed, but cannot absorb as much damage as a heavy cruiser or battleship.

Mining Ship

Mining ships are used to remove valuable ores, minerals, metals and other resources from asteroids and planets. The ship's processing facilities remove valuable materials from the rock or dirt being mined and jettison the tailings.

When a planet is mined, the mining ship sends several shuttles (carried in the miner's cargo hold) down to the surface, where the digging and processing takes place. Only the valuable materials are

brought back to the ship. When an asteroid is mined, the processing takes place in the mining ship. Digger robots are used to bore into the asteroid and carry the raw ore back to the mining ship.

Scientific Research Ship

Research ships are basically self propelled laboratories. They are used to explore, map and analyse the planets, asteroids, moons and stars of a given star system as well as deep space phenomena.

Scout

With less firepower than a fighter but with the ability to make interstellar trips. They also serve as rescue ships and combat vessels.

Shuttle

Shuttles are small ships that can land on the surface of a planet and take off again. They can fly into orbit around planets, fly between planets and in some cases between stars. Shuttles are the least expensive spaceships to build. Shuttles are used to transport passengers and supplies from starships or space stations to a planet's surface, and from planets to ships in orbit.

Spaceliner

Passenger transports come in a wide variety of sizes and are fast, capable of providing the wealthy with any conceivable luxury.

Space Station

These are large outposts that orbit planets and serve as a base of operations for other ships. They have only impulse or no propulsion and station keeping thrusters. They are constructed in orbit

around a planet and stay there through their entire service.

Space stations vary widely in size and cost. Most spin so that centrifugal force will simulate gravity around the station's outer rim. It is not uncommon for a station to have a population of several thousand more or less permanent residents.

Space station hulls are ring-shaped, with a dock for space ships at the centre of the ring. Any type of ship may dock with a station depending on its size and may use its weapons to help defend the station. Starships and large system ships cannot land on planets, so they transfer cargo and passengers while docked at space stations.

Shuttles are used to transport goods and passengers between the station and the planet's surface. Larger stations carry large quantities of supplies that are loaded onto ships as they are needed.

Space stations usually serve as bases for spaceship operations and as links for space-planetary communications and travel. At major starship air docks and military bases, as many as six or eight Type 25 stations may be linked in a line, but these orbiting giants are rare. The types of ships that can be docked at various stations are listed below. Not all space stations fit the descriptions above.

Such stations are designed and built to serve a specific purpose, and are not equipped to serve as bases for spaceships. Space stations can be used for agriculture, scientific research and planetary defence.

Stations designed for planetary defence are designated fortresses and can serve as bases for military ships. A fortress may even have a small complement of fighters that can be launched and re-armed there.

Spaceships can be built only at Spacestation Factories. Every construction centre is rated as a Class I, Class II or Class III centre. All centres consist of at least one Type 20 space station.

The docking bays of these Spaceship Construction Centres are large, open areas. Often specific docks in the bay may be enclosed to contain air pressure, so workers do not need to wear spacesuits; these are called airdocks.

Class I Centres can construct any type of military or civilian ship.

Class II Centres can construct any ships of up to 500 metres in size.

Class III Centres are used only for the construction of system ships, since installing and adjusting warp engines requires equipment that is not available at these smaller centres. Any size civilian system ship can be built at a Class III centre, but these centres will never be used for the construction of military vessels.

Appendix 3: Ship Maintenance and Repairs

Like all types of machinery, a spaceship requires maintenance in order to operate with top efficiency. If the ship does not receive this maintenance, the chance of a serious breakdown during a voyage increases dramatically.

All spaceships whether starships, system ships or shuttles should undergo routine maintenance once every year. Any spaceship construction centre can perform routine maintenance on any ship even if the ship could not have been built at that centre.

These routine checks, replacements and tune-ups take D10 days + the size of the ship. The cost is assessed to the shipowner at a rate of 1000 Cr per day of work. If the ship is operating under a company charter, the company and the owner split the cost in half.

If a ship has gone more than a year without maintenance add another D10 to the number of days needed to complete the work. If two years have passed 2D10 should be added and so on.

The breakdown of a crucial spaceship system is a matter of grave concern to all spacers. While routine maintenance lowers the chance of a breakdown it does not eliminate that chance entirely. Factors such as the age of the ship and the length of time since its last annual maintenance affect the likelihood of a system failure or breakdown.

The chance that a new ship will break down on any given voyage is only 1%. For each five years that the ship has been in service add another +1%. Unless the referee has a specific reason for

declaring a ship to be a certain age consider most spaceships to be 2D10 years old.

If a ship misses its yearly maintenance add +5% to its break down chance. If more than two years have passed since the ship was in the shop add +10%.

There will be times when the dice indicate a breakdown should occur but serious problems would be caused in the campaign if the players had to stop the action to make repairs.

As usual this rule is simply a guideline that the GM should disregard whenever it is inconvenient. On the other hand a breakdown is an excellent tool for the GM when he wants to strand the characters so they can have a planned adventure.

The GM should roll for a breakdown at some time during each voyage. If there is a breakdown the Spaceship Breakdown Table should be consulted.

Once the referee determines that a ship will break down he should roll 2D10 and find the result on this table. Or the GM can simply choose a breakdown that suits his purpose or invent a new one that is not on the table.

D100 Breakdown Type

01-15 Communication system failure.

16-30 Manoeuvre jets failure; lose all steering.

31-40 Radar failure; blind in all sensors.

41-50 Engine failure; all engines shut down.

51-60 Astrogation failure; no FTL or jumps possible until repaired.

61-70 Computer failure; all systems have shut down.

71-80 Life support failure; must wear spacesuit until repaired.

81-90 Short circuit causes fire; roll for damage table every 10 minutes until put out.

91-00 Meltdown; engines will explode in D10 minutes, must repair or eject them.

When a ship survives a battle crew members will try to repair battle damage as quickly as possible. Most ship systems can be repaired in space but severe hull damage may be impossible to repair without airdock facilities.

Hull damage is repaired using the ship's DCR the same as during combat. Each successful roll repairs D20 points of Hull damage. If any Hull damage repair roll is unsuccessful however then the damage cannot be repaired in space. The ship must be taken to an airdock and patched.

While in the shop D20 points of Hull damage will be repaired per day at a cost of 1000 Credits per day. Other systems also can be repaired using the ship's DCR. The entire DCR can be applied to each repair. One roll is allowed every 30 minutes.

Eventually every system will be repaired. However if any roll results in a 99 or 100 that system cannot be repaired with parts on the ship. The ship must be taken to an airdock where the damaged system can be repaired in one day for the standard charge of 1000 Credits per day.

Space Travel Times

(Advanced)

Below is a chart of space travel times as seen by an outside observer. The distances shown are for light years (LY). It expands the basic table by adding the 20 different types of Warp Drive, 13 different types of Hyperspace Drive and 3 different types of Jump Drive.

Impulse Drive

Impulse is the fastest available non FTL drive.

<u>Distance</u>	<u>Time Taken</u>
1 LY	4 yrs
10 LY	40 yrs
25 LY	100 yrs
50 LY	200 yrs
100 LY	400 yrs
250 LY	1000 yrs
500 LY	2000 yrs
1000 LY	4000 years

Travel time is shown in years (yrs) that it takes in real time.

Warp Drive

Warp reactors use small bits of anti-matter to annihilate matter, producing potentially hundreds of times the energy of the same weight of hydrogen fusion fuel. While it is the most expensive power source by far, it is also the most powerful for its mass. Vessels are propelled at such huge speeds that time outside the vessel actually slows down. This allows the vessel to travel great distance in much reduced times of only 1 day for each 100 light years being travelled. Tech level 9 only. Travel time is shown in months, days, hours (hrs), minutes (mins), and seconds (secs).

Warp Drive Type I

Distance	Time Taken
1 LY	5 hours, 5 minutes
10 LY	55 hours
25 LY	5 days, 7 hours
50 LY	11 days, 4 hours
100 LY	22 days, 9 hours
250 LY	57 days
500 LY	3 months, 8 days
1000 LY	7 months, 6 days

Warp Drive Type II

Distance	Time Taken
1 LY	68 minutes
10 LY	11 hours, 3 minutes
25 LY	28 hours, 3 minutes
50 LY	56 hours, 6 minutes
100 LY	4 days, 7 hours
250 LY	11 days, 8 hours
500 LY	23 days, 6 hours
1000 LY	47 days, 2 hours

Warp Drive Type III

Distance	Time Taken
1 LY	20 minutes
10 LY	3 hours, 3 minutes
25 LY	8 hours, 3 minutes
50 LY	16 hours, 6 minutes
100 LY	33 hours, 3 minutes
250 LY	3 days, 4 minutes
500 LY	6 days, 9 hours
1000 LY	13 days, 8 hours

Warp Drive Type IV

Distance	Time Taken
1 LY	8 minutes
10 LY	80 minutes
25 LY	3 hours, 3 minutes
50 LY	6 hours, 6 minutes
100 LY	13 hours, 3 minutes
250 LY	33 hours
500 LY	2 days, 7 hours
1000 LY	5 days, 5 hours

Warp Drive Type V

Distance	Time Taken
1 LY	4 minutes
10 LY	40 minutes
25 LY	1 hour, 6 minutes
50 LY	3 hours, 3 minutes
100 LY	6 hours, 6 minutes
250 LY	16 hours, 6 minutes
500 LY	1 day, 3 hours
1000 LY	2 days, 7 hours

Warp Drive Type VI

Distance	Time Taken
1 LY	2 minutes
10 LY	20 minutes
25 LY	50 minutes
50 LY	1 hour, 6 minutes
100 LY	3 hours, 3 minutes
250 LY	8 hours, 3 minutes
500 LY	16 hours, 6 minutes
1000 LY	33 hours, 3 minutes

Warp Drive Type VII

Distance	Time Taken
1 LY	1 minute
10 LY	10 minutes
25 LY	25 minutes
50 LY	50 minutes
100 LY	1 hour, 6 minutes
250 LY	4 hours, 1 minute
500 LY	8 hours, 2 minutes
1000 LY	16 hours, 4 minutes

Warp Drive Type VIII

Distance	Time Taken
1 LY	10 seconds
10 LY	100 seconds
25 LY	4 minutes, 1 second
50 LY	8 minutes, 3 seconds
100 LY	16 minutes
250 LY	41 minutes
500 LY	83 minutes
1000 LY	6 hours, 9 minutes

Warp Drive Type IX

<u>Distance</u>	<u>Time Taken</u>
1 LY	7 seconds
10 LY	70 seconds
25 LY	2 minutes, 9 seconds
50 LY	5 minutes, 8 seconds
100 LY	11 minutes
250 LY	29 minutes
500 LY	58 minutes
1000 LY	4 hours, 8 minutes

Warp Drive Type X

<u>Distance</u>	<u>Time Taken</u>
1 LY	1 second
10 LY	7 seconds
25 LY	17.5 seconds
50 LY	35 seconds
100 LY	70 seconds
250 LY	2 minutes, 9 seconds
500 LY	5 minutes, 8 seconds
1000 LY	11 minutes

Warp Drive Type XI

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	6 seconds
25 LY	15 seconds
50 LY	30 seconds
100 LY	1 minute
250 LY	1 minute, 5 seconds
500 LY	3 minutes
1000 LY	6 minutes

Warp Drive Type XII

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	5 seconds
25 LY	13.7 seconds
50 LY	27 seconds
100 LY	54 seconds
250 LY	1 minute, 3 seconds
500 LY	2 minutes, 7 seconds
1000 LY	5 minutes, 5 seconds

Warp Drive Type XIII

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	4 seconds
25 LY	12.5 seconds
50 LY	25 seconds
100 LY	50 seconds
250 LY	1 minute, 2 seconds
500 LY	2 minutes, 5 seconds
1000 LY	5 minutes

Warp Drive Type XIV

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	3 seconds
25 LY	10 seconds
50 LY	20 seconds
100 LY	40 seconds
250 LY	1 minute
500 LY	2 minutes
1000 LY	4 minutes

Warp Drive Type XV

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	2 seconds
25 LY	7.5 seconds
50 LY	15 seconds
100 LY	30 seconds
250 LY	75 seconds
500 LY	1.5 minutes
1000 LY	3 minutes

Warp Drive Type XVI

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	1.3 seconds
25 LY	5 seconds
50 LY	10 seconds
100 LY	20 seconds
250 LY	50 seconds
500 LY	1 minute
1000 LY	2 minutes

Warp Drive Type XVII

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	1.3 seconds
25 LY	4 seconds
50 LY	8 seconds
100 LY	16 seconds
250 LY	40 seconds
500 LY	50 seconds
1000 LY	1 minute

Warp Drive Type XVIII

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	1.1 seconds
25 LY	3 seconds
50 LY	6 seconds
100 LY	12 seconds
250 LY	26 seconds
500 LY	52 seconds
1000 LY	104 seconds

Warp Drive Type XIX

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	1 second
25 LY	2 seconds
50 LY	4 seconds
100 LY	8 seconds
250 LY	18 seconds
500 LY	36 seconds
1000 LY	52 seconds

Warp Drive Type XX

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	instant
25 LY	1 second
50 LY	2 seconds
100 LY	4 seconds
250 LY	9 seconds
500 LY	18 seconds
1000 LY	36 seconds

Hyperspace Drive

This involves the ship entering a parallel universe where there is a higher speed of light. When the journey is complete the ship returns to real space. Travel time is shown in months, days, hours (hrs), minutes (mins), and seconds (secs).

Hyperspace Drive Type I

<u>Distance</u>	<u>Time Taken</u>
1 LY	3 hours, 21 minutes
10 LY	32 hours, 1 minute
25 LY	3 days, 3 hours
50 LY	6 days, 7 hours
100 LY	13 days, 3 hours
250 LY	33 days
500 LY	66 days, 8 hours
1000 LY	4 months, 4 days

Hyperspace Drive Type II

<u>Distance</u>	<u>Time Taken</u>
1 LY	32 minutes
10 LY	5 hours, 3 minutes
25 LY	13 hours, 3 minutes
50 LY	26 hours
100 LY	53 hours
250 LY	5 days, 5 hours
500 LY	11 days, 1 hour
1000 LY	22 days, 2 hours

Hyperspace Drive Type III

<u>Distance</u>	<u>Time Taken</u>
1 LY	8 minutes
10 LY	80 minutes
25 LY	3 hours, 3 minutes
50 LY	6 hours, 6 minutes
100 LY	13 hours, 3 minutes
250 LY	33 hours, 3 minutes
500 LY	66 hours, 6 minutes
1000 LY	5 days, 5 hours

Hyperspace Drive Type IV

Distance	Time Taken
1 LY	3 minutes
10 LY	30 minutes
25 LY	75 minutes
50 LY	2 hours, 5 minutes
100 LY	5 hours
250 LY	12 hours, 5 minutes
500 LY	25 hours
1000 LY	50 hours

Hyperspace Drive Type V

Distance	Time Taken
1 LY	1 minute
10 LY	10 minutes
25 LY	25 minutes
50 LY	50 minutes
100 LY	1 hour, 4 minutes
250 LY	4 hours, 1 minute
500 LY	8 hours, 3 minutes
1000 LY	16 hours, 6 minutes

Hyperspace Drive Type VI

Distance	Time Taken
1 LY	8 seconds
10 LY	80 seconds
25 LY	3 minutes, 3 seconds
50 LY	6 hours, 6 minutes
100 LY	13 minutes
250 LY	25 minutes
500 LY	50 minutes
1000 LY	100 minutes

Hyperspace Drive Type VII

Distance	Time Taken
1 LY	4 seconds
10 LY	40 seconds
25 LY	2 minutes
50 LY	3 minutes, 3 seconds
100 LY	6 minutes, 6 seconds
250 LY	16 minutes
500 LY	3 minutes
1000 LY	66 minutes

Hyperspace Drive Type VIII

Distance	Time Taken
1 LY	3 seconds
10 LY	30 seconds
25 LY	75 seconds
50 LY	2 minutes
100 LY	5 minutes
250 LY	12 minutes
500 LY	25 minutes
1000 LY	50 minutes

Hyperspace Drive Type IX

Distance	Time Taken
1 LY	2 seconds
10 LY	20 seconds
25 LY	50 seconds
50 LY	75 seconds
100 LY	3 minutes, 3 seconds
250 LY	8 minutes, 3 seconds
500 LY	16 minutes
1000 LY	33 minutes

Hyperspace Drive Type X

Distance	Time Taken
1 LY	1 second
10 LY	19 seconds
25 LY	45 seconds
50 LY	50 seconds
100 LY	2 minutes
250 LY	7 minutes, 9 seconds
500 LY	15 minutes
1000 LY	31 minutes

Hyperspace Drive Type XI

Distance	Time Taken
1 LY	instant
10 LY	16 seconds
25 LY	40 seconds
50 LY	45 seconds
100 LY	75 seconds
250 LY	6 minutes, 6 seconds
500 LY	13 minutes
1000 LY	26 minutes

Hyperspace Drive Type XII

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	10 seconds
25 LY	25 seconds
50 LY	40 seconds
100 LY	50 seconds
250 LY	4 minutes, 1 second
500 LY	8 minutes
1000 LY	16 minutes

Hyperspace Drive Type XIII

<u>Distance</u>	<u>Time Taken</u>
1 LY	instant
10 LY	4 seconds
25 LY	10 seconds
50 LY	25 seconds
100 LY	40 seconds
250 LY	1 minute, 6 seconds
500 LY	3 minutes
1000 LY	6 minutes

Jump Drive

Jump Drives work by drawing a vast amount of energy and using it to literally pull a hole in space known as a "jump conduit" to a transitive plane called "jump space". In Jump space distance and time does not work the same way in as it does in real space. Thus by travelling through Jump space vast amounts of distance can be traversed in a far shorter time. Tech level 10 only.

Jump Drive Type I

<u>Distance</u>	<u>Time Taken</u>
1 LY	6 seconds
10 LY	1 minute
25 LY	2 minutes, 5 seconds
50 LY	5 minutes
100 LY	10 minutes
250 LY	25 minutes
500 LY	50 minutes
1000 LY	100 minutes

Jump Drive Type II

<u>Distance</u>	<u>Time Taken</u>
1 LY	3 seconds
10 LY	30 seconds
25 LY	1 minute, 25 seconds
50 LY	2 minutes, 5 seconds
100 LY	5 minutes
250 LY	7 minutes, 5 seconds
500 LY	16 minutes
1000 LY	50 minutes

Jump Drive Type III

<u>Distance</u>	<u>Time Taken</u>
1 LY	1 second
10 LY	10 seconds
25 LY	25 seconds
50 LY	50 seconds
100 LY	65 seconds
250 LY	4 minutes
500 LY	8 minutes
1000 LY	16 minutes