

CYBORGS

Part biological, part machine cyborgs may exist in far future games where weak biology has been replaced with advanced technology or in near future games where cybernetics are an answer to an increasingly dangerous society.

Cyborgs are likely to exist both as an Archetype and as a general Character type in paranormals (super hero) games. A player wishing to play a cyborg starts by making a normal character and then purchasing cybernetic options and modifications.



In a very few games, the GM will consider cybernetics to be just another form of gear (like weapons and armor) and players won't need to buy modifications with character points at all—just money. These rules allow players to make characters for gritty near-future cyberpunk games, far future scenarios where cybernetics potentially an alternative to genetic engineering, and superheroes who are part man, part machine.

The Archetype

The cyborg archetype is a character in a near future world where societal decay has led to the adoption of metal parts. These cyborgs are commonly armed with paramilitary in-built weaponry or are otherwise survival and combat oriented.

Some possible scenarios might be:

- The low-life down on Wattson block discover that the Gamma Corp has plans to “renovate” the slum developments by arranging for one of the obsolete orbital refineries to fall out of orbit on it. The characters are a mix of cyborgs and extremely competent humans who are hired/motivated to protect their homes.
- A new virus has been trashing mainframes across the net. There seems to be no defense and very little evidence of how it spreads or how it's getting into the system. The characters are freelance “contractor-cowboys” who have their brains wired for cybernetic net access. They are brought in to track (in cyberspace) a mysterious individual who seems to be somehow connected to virus.
- The characters are a group of vat-grown “clones” that have been cybernetically augmented for mining on Saturn's moons. Now, they've escaped to earth and, nearing the end of their artificially shortened life cycle they must convince their creator/engineer to give them longevity and elude the human assassin/cop who's chasing them.
- Keeping up with the latest modifications takes a lot of money . . . fortunately you can use the just-barely-obsolete-stuff to make money. Especially the weapon pods. Especially in the city.

Life on the Edge:

When the sidebars here aren't discussing rules we'll take a look at some of the things for sale in the future (cybernetic or otherwise). If something has a cost in \$ then you just pay cash for it. If something has a listed point cost then you've gotta pay the points to have one on your character.

Streetwear: Hey, the street's a dangerous place. There're more predators on 42nd St. than the jungle . . . and they're better armed. Streetwear comes in a variety of styles and cuts for all ages and genders. It's knife proof and might even save your life from a low caliber handgun shell. Don't leave the enclave without it. Armor: 2/4. Cost: \$300.00

Wide-Awake Glands: Tired of being tired? Get wired! These glands will keep you awake for days. While in use you lose one Endurance point (recovered with a day of natural sleep only) per day without sleep. You still need about 3 hours “down time” but you can stay alert and alive. Accountants and programmers use a “civilian version”. It makes the user very pale—they're called ghouls and they actually need 3 hours of sleep per night. Cost: 2 pts (1 for the Ghoul glands).

Basic Rules

Cyborgs can be built on 75 to 150 points. In a game where cyborgs are legal, others may be allowed to play other. A good median is 100 or 125 points.

Four Primary Modification Types

There are four primary *modification types*. These are:

- PHY Enhancement (reinforced skeleton)
- REF Enhancement (hard wired nerves)
- INT Enhancement (mind-computer interface jack)
- Enhanced Prosthetics (metal body parts)

When the player buys one (or more—but they're pretty expensive) he gains the option to buy some of the Secondary Enhancement Types. For example, a character with a reinforced skeleton can then select Endo-Armor (armor which resides just under the skin), grafted on muscles, and implanted toxin injectors in his fingers.

Note: the costs for Primary Enhancers are not “a deal” however they give the character the option to buy secondary enhancers that are considerably more cost effective.

Weapon Mounts

Cyborgs can buy *weapon mounts* from the Cyborg Weapons List. This list has powerful weapons for a very cheap cost. Weapons from this chart are *only* legal in games where characters (including cyborgs) can just go down to the local armory and buy and carry weapons. If you are playing with other Archetypes in the same game, the GM should consider the imbalance of missile using Cyborgs vs. Chi Martial Artists (for example).

Custom designed weapons are encouraged but the GM should be consulted and asked to determine point cost. Use the weapon charts at the end of the section to determine how any given piece of combat equipment fits in (this should *not* apply to armor—cyborgs must either wear armor or buy it as the listed cybernetic modifications (or both)).

The result of this is that cyborg characters are almost invariably over armed. Their attacks do *not* balance against their armor (they are limited in the amount of armor they can buy). Thus, as in modern day roleplaying (and modern day real life) combat will be quick and brutal if all parties involved are slinging anti-personnel rockets and high explosive grenades at each other.



Cyber-Hand: Forget about tool-belts . . . just use your fingers. A cyber-hand gives the character instant access to his most commonly used tools. The kits are: electronic, mechanical, and medical. Each contains a cutting tool (which acts as a +2 damage knife in HTH combat).
Cost: 1 point

Fire-Eyes: Tired of being looked at funny? Give 'em something to think about. Fire Eyes glow red in the dark (other colors available) and reduce negative visibility modifiers by 2 points. Best of all they look cool!
Cost: 1 point

Designer Skin: Designer skin is a genetic-break through. You can have a variety of effects from simply being the first green, purple, blue, or whatever person in your building to adding our genetically sound fur or gills. Forget about leopard-skin underwear . . . get outfitted with some real leopard skin. Moving tattoos and a variety of adjustable “smart designs” can be added.
Cost: \$3,000 and up.
Fur or Scales costs 1 point if it's thick.

Cyborg Skills

In worlds where cybernetics are common there will be those trained to repair them and provide “medical services” to cyborgs. The skill Cybernetics Technician is used for this.

Cybernetics Technician Normal, RES

Description: This skill is sort of a cross between mechanics and medicine. The character needs equipment most of the time. The monetary cost of cybernetics repair depends on the campaign but it is assumed to be similar to auto work (this follows no mathematical model but is good for play balance). Cybernetics that suffered a critical failure must be replaced (GM's option they can be salvaged or at least sold for part of the price). A cybernetic technician must have Electronics and Mechanics at one level lower than this skill.

Level 1: Beginning Technician. The character can do 'dry' work only (work only on exterior mechanical objects that are basically machines). The character can repair only minor functions of cybernetics which have lost no more than 3 STC. Each hour of work and a successful roll will restore 1 point of STC and the damage points that went with it. A roll is needed to repair each minor function (the exact time is up to the

GM—usually around 10 minutes to 2 hours).

Level 2: Technician. The character can repair or replace most types of cybernetics. The character can work on the neural links that connect cybernetics to muscles, repair major functions, etc. The repair times as above are halved but the character is at a cumulative -1 for each point of STC lost above 3.

Level 3: Expert Technician. The character can repair wet cybernetics (those inside the body) and gets +3 to all repair rolls dealing with dry work (cybernetic limbs).

Level 4: Master Technician. The repair times are quartered and the character gets +3 on wet work, +6 on dry work. The master can work without proper equipment (usually at a -5—some things can't be repaired without equipment. The master gets a roll to repair even critically damaged cybernetics.

Bio-Energy Cell: Don't bother slowing down to eat! Each charge counts as a day's chow (used by the military mostly). Cost 1pt 4 charges.

External Datapacks:

Sometimes carrying it all around inside you is too much. Get it out of your system! External datapacks hold two hundred gigabytes and can be worn on a belt or harness. An hour of video can be held our specially designed earrings. To be used these must be hooked up to your Neural Jack—choose any of our flesh-toned wires (or select from our wild colors). The large pack is the size of a 20th century cell phone and is designed for super-fast neural access.

Cost: \$200 for the big pack, \$30 for the earring. The character *must* have a neural jack.

Toxin Filtration System: A real lifesaver if you work in industrial environments or have friends with a twisted sense of humor. The filtration system will protect all vital systems from most toxins. Get secured today.

Cost: 4 points for +2 to CON rolls against toxin. 8 points for +4 against toxins. 16 points for +8 against toxins.

Sound Effect Voice Box:

Jazz that speech up with our special effects throat implant. It can play music or any of thousands of pre-recorded sounds. Cost: 1 point.

Wet-Mods vs. Dry-Mods

Wet-Mods are enhancements that go inside the body and heavily interface with organic systems. Enhancements of the nervous system, the heart/lungs, the brain, or a character's muscle system are Wet-Mods. They are generally hard to spot since the enhancement is *inside* the body. The first three primary enhancers are Wet-Mods.

Dry-Mods are things like metal limbs, armored skin, etc. Anything that largely replaces an entire biological system somewhere in the cyborg's body is a drymod. Dry-Mods are easier to repair—but they are also easier to damage and easier to spot.

Concealing Dry-Mods is possible (over a metal arm is a thin layer of skin). It's expensive and still won't protect the character from sensory devices designed to look for cybernetics. Still, it can be done. Concealing a Dry-Mod costs +2 points and the equivalent of \$20,000. This must be done for each piece bought (arms, legs, head, torso, eyes perhaps). The GM may demand that the character have the appropriate wealth or patron to have the money (or the GM can simply assume that when the cybernetics were put in the character had the money but perhaps doesn't now).

Wet-Mods

Reinforced Skeleton (PHY Enhancement)

The first thing that is done when creating a PHY Enhanced cyborg is to re-tool the skeletal structure with "mount points" for other cybernetics. This confers the character some internal armor over his vital systems (he can buy more later, a few extra DP, and perhaps some extra STR).

Skeletal Type	Armor	DP	STR	BLD	Cost
Mark 1 Skeleton	2 / 4	+2	+0	+2	12
Mark 2 Skeleton	4 / 8	+4	+0	+4	24
Mark 3 Skeleton	8 / 16	+8	+1	+8	58

The armor provided has a coverage of 4 (see the combat section concerning coverage). If the advanced *vital coverage* rules are being used then this should be applied instead: an attack which hits by 0 to 3 *does not* hit the armor . . . but an attack which hits by 4+ hits the armor. If the attack is penetrating, a normal armor save is applied against the attack. This is because the skeleton covers all vital areas.

Backup Systems

The Cyborg has actual redundant systems in his body. They allow the character to sustain much more damage before becoming badly injured. The character will have distributed systems that function as hearts, lungs, livers, etc. The character may even have central neurons in areas other than the spine and cranial cavity.

Mutilation Surgery: Don't be a body piercing wimp—go straight to heavy metal! Any of a number of surgery boutiques can install the gear you need to stand out in a crowd. Some of our favorites: Exterior Chrome Cheek bones . . . \$800.00

Finger Hypodermic with clear viewing area in the second knuckle . . . \$600.00 (for a mild drug the owner biologically manufactures—toxin injectors cost points like a weapon).

Fin-Grafts for the "underwater look." They're worked into the muscles so you can flex them and gain +2 yards in swimming speed . . . ½ point.

Carnivore Teeth: look like the predator you are. The teeth do 1 + (STR-10) in close combat as a bio-weapon. Cost 1 point.

Auto-Focus Eyes: Let people know you're looking at them. The special iris dilates and contracts like a focus lens. +1 sight perception roll *if* the character declares he's using his auto-focus. Also, ignore up to -2 points of modifier for *sight perception rolls* due to small size or range of target. 2 points

When a character with cybernetic back-up systems is injured and suffers an unconscious or worse result, the back-up system kicks in: the character can re-make the CON roll. If the character was unconscious, he will remain unconscious for 1 second before making the second CON roll. The second CON roll determines the effects on the next second (which can involve burning another backup system for yet another roll).

Different systems give a certain number of re-rolls before they have to be recharged. This recharge can be done by a cybernetic repair technician or may occur normally. A cyborg usually gains one recharge per 4 days of rest or pays \$200 per recharge for a repair that takes an hour

Backup System	No. of Rolls	BLD	Requires	Cost
Mark 1	2	+1	Mk 1+ Skeleton	4
Mark 2	4	+2	Mk 2+ Skeleton	8
Mark 3	8	+4	Mk 3 Skeleton	16

Compartmentalized Body Structure

The cyborg has been redesigned so that vital systems are compartmentalized. This makes the cyborg hard to kill in two ways: it has a chance of “negating” penetration damage-doubling and it places a upper limit on how much damage the cyborg can take from any single penetrating damage hit (beyond that point the damage simply passes “through” the cyborg). This *threshold* only applies to weapons like bullets and lasers—swords aren’t affected because of the cutting motion.

When the cyborg suffers a vital hit (a hit by 4+ from a penetrating weapon), roll against the listed *Save Roll* and if you roll lower the penetration modifiers don’t double—but you still suffer the damage normally. Additionally, if you take damage (after armor) greater than the listed *Threshold* from a single penetrating shot, reduce the damage you *actually took after armor* to that listed number *if a Save Roll+2 is made*.

“The classical assault-refitted Infantry man was designed to charge up hill against a laser defended installation.

Since carrying enough armor to withstand a hit was out of the question, the designers decided to distribute the vitals to make them harder to stop.

This had the unfortunate and unanticipated result of some truly grotesque injuries coming back from the front lines.”

Compartment. Body	Extra DP	Save	Threshold	Requires	Cost
Mark 1	+4	9-	Critical Wound	Mk 1+ Skeleton	4
Mark 2	+8	11-	Major Wound	Mk 2 + Skeleton	16
Mark 3	+16	13-	2x Minor Wound	Mk3 Skeleton	24

Muscle Grafts

Taking “vat-grown” muscle tissue and grafting it into the body of a recipient is one of the more common modifications. The modification is usually visible (except, perhaps, at the lowest level) because of the bulging muscles which the character has. Furthermore, the muscles have been genetically manipulated to need only the slightest exercise to keep in their prime.

“Al right, Doc, pump me up!”

Muscle Grafts	STR	Extra DP	Extra BLD	Requires	Cost
Mark 1	+2	+3	+4	Mk 1+ Skeleton	8
Mark 2	+4	+6	+8	Mk 2 + Skeleton	16
Mark 3	+6	+9	+16	Mk 3 Skeleton	24

Enhanced Cardiovascular System

The character has a complex of blood filters, improved lung and heart muscles, selective blood pressure devices specially keyed for high stress situations. This gives the character some resistance to toxins and disease, and extra endurance. Relatively cheap, it will be one of the first thing cybernetic soldiers are fitted with.

The CON roll + *only* applies to healing rolls, disease and toxin resistance rolls, rolls to stop bleeding, and POWER vs. STAT attack rolls. It does not apply to wound rolls of any sort.

In what some considered and ironic twist of fate, the RJ Reynolds Corporation made millions in the 21st century selling genetically engineered lungs and hearts.

Enhanced CV	END	+ to CON Rolls	BLD	DP	Requires	Cost
Mark 1	+8	+2	+1	+2	Mk 1+ Skeleton	4
Mark 2	+16	+3	+2	+4	Mk 2 + Skeleton	8
Mark 3	+32	+4	+4	+8	Mk 3 Skeleton	16

Life Support System

The cyborg is fitted with lungs that can store and meter compressed air to the character. The character's skin will be sealed and the resulting cyborg will be able to survive in airless conditions for some time. In fact, the cyborg will be able to "buddy breath" with one or more people (divide the total time by the number of people supported). Because the character's blood system is not susceptible to relatively slow pressure changes (the bends) the character can operate under water or, perhaps, in high atmosphere pressures on some other planet.

At level 2+, the character's skin, while appearing normal is impervious to heat and cold: a certain amount of "environmental" armor is granted to the character. This is applied against any damage from temperature changes (including rapid ones like flame throwers, plunging one's hand into liquid nitrogen to retrieve cloned eyeballs, whatever).

"I lost him—he jumped into the water. Please advise—over."

"Keep looking, he's got to come up for air. As soon as you acquire the target destroy him—over."

"Um . . . control, have you read the target's spec-sheet? I don't think we're gonna see this guy."

Life Support	Air Time	Environmental Armor	BLD	DP	Requires	Cost
Mark 1	2 hours	--	+1	+2	Mk 1+ Skeleton	4
Mark 2	4 hours	12	+2	+4	Mk 2+ Skeleton	8
Mark 3	8 hours	24	+4	+8	Mk 3 Skeleton	16

Reinforced Physiology

The cyborg has had its internal systems upgraded to withstand exceptional damage. Arteries are reinforced with micro-strands of polymer, lymph fluid is enhanced along with biological blood additives to reduce bleeding and speed recovery. Layers of internal "smooth muscle" are augmented to withstand physical stress far in excess of the norm without failing.

The CON roll + *only* applies to healing rolls, disease and toxin resistance rolls, rolls to stop bleeding, and POWER vs. STAT attack rolls. It does not apply to wound rolls of any sort.

"How much punishment can one guy take!?"

Reinforced PHY	DP	+ to CON rolls	BLD	Requires	Cost
Mark 1	+16	+0	+4	Mk 1+ Skeleton	20
Mark 2	+32	+1	+8	Mk 2 + Skeleton	40
Mark 3	+64	+2	+16	Mk 3 Skeleton	80

Shell

Shell is an artificially grown replacement for the dermis and epidermis (skin). It is alive (vat grown) but requires a reinforced skeleton for anchor points and nutrient systems. Its purpose is similar to polymer armor in that it is protective but more than simply stopping damage, it prevents tears and rips (and bleeding). Each level gives the Cyborg some armor (treated as bio-armor) and an unusually high penetration defense. Shell shifts wounds down one category for *bleeding purposes only*. It may look normal or be created in designer colors.

*Bullets—winter rain
Drive hard against my skin.
And yet I still live.*

2079—Street Samurai Haiku

Shell	DP	Damage Reduction	Penetration Resistance	BLD	Requires	Cost
Mark 1	+2	+1	+10	+4	Mk 1+ Skeleton	6
Mark 2	+4	+2	+20	+8	Mk 2 + Skeleton	12
Mark 3	+8	+4	+30	+16	Mk 3 Skeleton	18

Polymer Reinforced Tissue

Reinforced tissues act as armor—the character is simply harder to cut and hurt.. Depending on what body armor is like in the game, the GM may wish to charge more for this since layering it with assault gear can make cyborgs nearly indestructible. A possible solution (although one everyone playing has to agree upon) is the unspoken rule that armored cyborgs don't wear body armor on top of it.

*I felt the round strike like an
impossibly fast punch to the
head . . . then another. I turned
around, slowly, lighting my eyes
up as I did. The punk fired a
third round into my chest,
ruining the All-Nite-Mart
Employee Smock.*

This armor is “all the way through” they cyborg—it does not have coverage rolls or other such modifiers).

*“You want fries with your ass-
kicking?” I asked him coolly.*

Polymer Tissues	DP	Armor	BLD	Requires	Cost
Mark 1	+4	+4 / 8	+4	Mk 1+ Skeleton	12
Mark 2	+8	+8 / 16	+8	Mk 2 + Skeleton	24
Mark 3	+16	+16 / 32	+16	Mk 3 Skeleton	48

Damage Control

This PHY Cybernetic enhancement gives the character a reserve of “Damage Control” points that “come back” when he goes into a rest-shutdown state. When he turns it on (5 REA Medium action, automatic if unconscious for more than 3 seconds) he recovers 1 DP per minute and all blood loss is stabilized. If the character is Dying (or has Internal Damage) these effects will be halted but the character will be unconscious for 1 hour per DP recovered. If not unconscious, the shutdown state leaves the character alert, but in a “Dazed state” for purposes of combat and other actions. The recharge takes 1 hr per DP of normal sleep.

Damage Control	DP Reserve	Requires	Cost
Mark 1	¼ Total DP	Mk 1 Skeleton	6
Mark 2	½ Total DP	Mk 2 Skeleton	8
Mark 3	¾ Total DP	Mk 3 Skeleton	10

Hardwired Reflexes (REF Enhancement)

Biological nerves are slow: chemical bridges are built to transmit electrical impulses through tissue. This can be improved upon—the nerve trunks can be replaced with spun glass and electrical switch junctions. The clocks in the brain that control reaction speed can be upgraded with “wetware” patches to give the recipient quicker reflexes. Reflex “loops” which control automatic responses (like pulling one’s hand back from a hot surface) can be upgraded to “smart reflexes” where the character takes other actions dependent on the situation.

Hardwired reflexes give the character a higher REA score *and* an even higher initiative roll. The Initiative bonus is given *in addition to* the higher REA (so Mark 1 Hardwired Reflexes gives the character +5 to his initiative rolls but only +3 actual reflexes.)

Hardwired Reflexes	REA	Initiative	Cost
Mark 1	+3	+2	20
Mark 2	+6	+2	35
Mark 3	+12	+4	70

Enhanced Dodge

Enhanced Dodge gives the character a –1 to be hit per point of AGI above 10 from *both* HTH attacks *and* Ranged attacks. Additionally, an attack which hits gets [AGI-10] *subtracted* from its Damage Modifier (before penetration doubling). So a 14 AGI character gets –3 to be hit and –3 subtracted from any Damage Modifier if he is hit (so penetration attacks need to hit by 7 to have a chance of doubling).

Enhanced Dodge	Requires	Cost
Mark 1	Mk 1+ HW REF	16
Mark 2	Mk 2+ HW REF	12
Mark 3	Mk 3 HW REF	8

Enhanced Ground Speed

The internal “clock” which determines how fast a life form runs can be cybernetically adjusted. The character will have a higher ground speed. The plus to ground speed will be added to sprint, 2/3rds of it will be added to running speed, and 1/3rd of it will be added to walking speed.

Enhanced Ground Speed	Speed Bonus	Requires	Cost
Mark 1	+3 yards / sec	Mk 1+ HW REF	2
Mark 2	+6 yards / sec	Mk 2+ HW REF	4
Mark 3	+9 yards / sec	Mk 3 HW REF	8

Smart Reflexes

The character’s natural reflex loops have been augmented with computer chips and fiberoptic relays to make them “smart.” This is designed for combat purposes but it can be useful in other physical applications. The character gains an effective +2 COR or +2 AGI for the purpose of learning one *Level 1 or Level 2* Combat skill.

She moved like a human tornado, cutting through the three men in a flurry of super-sharp steel and blood. When she stopped she was smiling a predator’s smile.

By the time they hit the ground, her blade was cleaned and sheathed along her leg.

Everything shifted into slow time. Even the muzzle flashes of their guns had a feel of stasis. Predicting their aim, I stepped under their arc of fire and let the claws come out.

Very few of the couriers worked without bikes—but some of the warrens were hard to maneuver in.

Greg-J went in for an emergency following a particularly nasty knife fight—but after that, his visits to the surgery parlor were strictly elective.

This can be done more than once—but only one set of reflexes can be active at a time. When a set of reflexes are shut down, the character can't use the skill at all (nothing functions quite the way the character thinks it will). Switching reflex sets is a 5 REA medium action.

The specific *skill* itself can also be wired in (just apply the points to the character's AGI or COR).

NSP v2.10

Neural Signal Protocol v1.20 is the commonly used data-transfer protocol for cybernetics (the "language" the hardware speaks). With version 2.10 the character has the newest upgrade! This gives an across-the-board +1 to the purchase of any *Level 1* or *Level 2* skill based on COR or AGI. This plus doesn't stack with smart reflexes (smart reflexes are the "hardware" solution—this is the "software" solution).

NSP v2.10	Requires	Cost
Mark 1	Mk 1+ HW REF	8
Mark 2	Mk 2+ HW REF	6
Mark 3	Mk 3 HW REF	4

Computer Targeting

Computers interlaced along the spine in a helix pattern monitor body location and visual input. The character can designate a target to track and the computers will respond with tactile feedback when the user's weapon is on target.

Selecting a target is a 5 REA medium action and requires a successful roll to hit—this does not actually fire the weapon although the weapon must be brought to bear. From this point on, that target will be at +2 to hit (in addition to any aim). Other targets will be at -2 to be hit will a given target is under lock).

Computer Targeting	Requires	Cost
Mark 1	Mk 1+ HW REF	6
Mark 2	Mk 2+ HW REF	4
Mark 3	Mk 3 HW REF	2

HardWired gunslingers were a real problem for the S.W.A.T. forces since they were fast enough to aim and good enough not to miss . . . even at rifle-ranges. The departments responded by wiring their own troops for "lightning fast" first-strike capacity and the arms race spiraled up from there.

Precision Striking

The character comes with a neural-network combat computer that enables him to aim attacks so that they penetrate armor. The system requires 3 REA to set up the strike *unless* the character has a Mk1 or better cybernetic computer system (see INT Modification). Either way, Precision Strikes are at -1 to hit. The character's strikes ignore the listed amount of armor. The Penetration Resistance of armor is NOT changed, but if the character ignores all existing armor, penetrating shots automatically penetrate.

Precision Module	Armor Ignored	Requires	Cost
Mark I	2	Mk 1 Reflexes	4
Mark 2	4	Mk 2 Reflexes	6
Mark 3	6	Mk 3 Reflexes	8

Evasion Reflex Loops

Evasion Reflex Loops analyze attack trajectories and move the character out of the way. To have Evasion Reflex Loops, the character must have Enhanced Dodge. The Reflex Loops give the character an AGI score that he may *substitute for his own for purposes of Enhanced Dodge only*. This means that if the 'Virtual AGI' is 14, and the character's AGI is only 12, the character still buys skills at a 12 AGI, but is at -4 to be hit and takes -4 Damage Mods. Additionally, the character's actual Dodge Move is improved. The character may spend +1 or +2 points of REA with a Dodge to get a +1 or +2 to a Dodge Roll (the character's Dodge will be AGI or Acrobatics skill). If the character is hit anyway, the +1 or +2 acts as an additional negative damage modifier.

Evasion Reflex Loops	Dodge	'AGI'	Requires	Cost
Mark I	+1 or +2	13	Mk 1 Reflexes	6
Mark 2	+1 or +2	14	Mk 2 Reflexes	12
Mark 3	+1 or +2	15	Mk 3 Reflexes	18

System Shock Dampers

The character suffers the neurological effects of damage much better. The character feels no real "pain" and can otherwise sustain greater amounts of damage (organs will keep working after they've been partially destroyed, muscle groups have multiple "backup" neural inputs and reconfigure to work if partially severed, the heart will keep pumping blood on only 1 chamber). The drawback to this is that at Injured Condition, the character loses 2 points of CON and 3 at Serious Condition, making death more likely.

System Shock Dampers	DP Bonus	Requires	Cost
Mark I	+6	Mk 1 Reflexes	8
Mark 2	+8	Mk 2 Reflexes	12
Mark 3	+12	Mk 3 Reflexes	16

Neural Jacks (INT Enhancement)

Wiring the brain with “sockets” into which pieces of hardware can be attached is the next frontier of human-computer interface. The basic neural jack involves (depending on the GM’s view of the technology) creating a channel in the brain which opens to an outside interface port and connects on the inside to a “patch” which consists of fiber-optics, neural-net logic-gate arrays, and biological tissue.

The basic jack allows different attachments from “skill-chips” to computer targeting systems. The patch brings *some* functions of the brain up to computer like speeds as the wearer learns to “formulate questions” in such a way as to use the patch’s high-speed processing power. At the basic level the patch can only be used to solve math problems extremely quickly (and then, only if the character has Level 2 or higher Mathematics skill—otherwise that virtue will be wasted). Additionally, the patch gives the character an effectively higher RES for computer skill.

Many cyberpunk games feature a sort of virtual-reality Internet where people can interact, work with data in 3d, and hack with “hunter-hunted” paradigms. It is beyond the scope of these rules to completely specify all the possibilities for these, however if the game world includes this development (indeed, the real world may include some version of it within 50 years) then a neural jack is all that is required to access it.

Neural Jack	Computer Skill	Math Speed	Cost
Mark 1	+1	2x	8
Mark 2	+2	4x	16
Mark 3	+3	8x	24

Skill Chip Slot

A skill chip is a database coupled with “natural language query hardware” which fits into a chip slot. The chip slot requires a neural jack. Once a character is fitted he can buy skill chips (usually sold on the open market) and simply insert the chip to know the skill.

A chip usually contains a MEM or RES based skill at Level 2 proficiency or it can contain a database of a specific sort holding several Gigabytes of data on some topic (mixed drinks, classic cars, rules of card games). Some very rare and super expensive chips contain Level 3 skills. These take *two* slot locations. The skills themselves exist in the interconnections of a chemical matrix within the chip housing—copying them has proven impossible: each must be taken from a live human and is a time consuming process. Most skills on chips have a 13- or lower roll (even if the “donor” had a higher roll).

The type of jack determines what level the skill can be used at (a Mark 1 jack will only allow the skill to be used at Level 1 regardless of the level on the chip). The jack type also determines the speed of extraction. A Mark1 jack retrieves data at close to the speed of reading—but higher-grade jacks make the use much more natural. Note: if the character has a database in his slot(s) it is always retrieved at one level lower—just having the chip in isn’t like having read *and memorized* the entire Library of Congress.

Supers With Neural Jacks:

For making superheroes with Neural jacks, just pay the listed costs out of Base Character points (paying an overhead tax, if any). There are not separate costs for superheroes and “normal cyborgs.”

Some Chip Slot Databases:

There are all kinds of databases available for chip-heads. Some are useful for almost everyone . . . some are so trivial it’s hard to imagine why they were compiled.

If you’re looking through the chip-bin at the local wetware mart, this is a sampling of what you might find.

Random News-Group

Archives: There could be almost anything in there. Search for some fact (or misinformation) at 9- for a small, 11- for a medium and 13- for a large. Popular topics add +5, obscure ones –1 to –10.

In a sense, this is like having skills you pay money for, instead of points—but it isn't quite that simple. Having a skill isn't like having an expert on the phone you can ask questions of—it's an integral knowledge of a subject. For the chips to work, they must interface with the brain on a deep level—the result: a risk factor from bad chips.

Chips can be encoded with psychological defects, neurosis, time bombs, insanity clocks (a countdown after which the user starts to go insane). If the bad ones have a “lock-out” which prevents the wearer from removing the chip. They can be a massive help to dictatorial control of a population. Usually a chip will have a POWER factor between 1 and 10 (with the highest usually seen being 5). This is the negative at which the character must make a WIL roll at to prevent adverse effects. It is very difficult to “scan a chip” to see if it is hostile but some guidelines may exist—the safest bet is to buy from known sources . . . but they may not have the skills you need.

How exactly the GM runs this, if it is allowed at all, depends on the type of cyber-society he wishes to create. Characters who are employees of high security companies may be fitted with loyalty chips (Code of Ethics: loyalty to the company . . . or worse, neurosis: something horrible will happen to me if I betray the company). The GM may determine that almost all skill chips are illegal making any of them risky. Etc. The GM should be consulted before this is taken.

Skill cost will, of course, vary depending on the campaign economy—but a reasonable price in today's dollars would seem to be:

Skill Type	Cost L1	Cost L2	Cost L3
Difficult (Takes 2 slots)	\$500	\$2000	\$500,000
Normal	\$100	\$500	\$200,000
Database	(Sm.) \$50 (Med.) \$300 (Lg.) \$1000		

Assume the average player will start with about \$1000 to spend on chips, plus having one chip (Level 2) per slot. Small databases are very specific topics, medium databases are the equivalent of a collected volume of works on a topic, and large databases are a collection of definitive works on a topic.

Chip Slot	Max Skill Level	Retrieval Speed	Number of Chips	Requires	Cost
Mark 1	Level 1	Reading	1 at a time	Mk 1 Jack	4
Mark 2	Level 2	4x Reading	2 at a time	Mk 2 Jack	8
Mark 3	Level 3	Instant	4 at a time	Mk 3 Jack	16

2000 Gourmet Recipes: The chip contains thousands of food preparation scripts (small).

Fire Arms/Cyber-Weapon

Identification Guide: The medium database has a 14-chance of giving *detailed* information on *any* cybernetic weapon. The GM has to decide what year the chip was made—it makes some guesses about the future but it isn't as cool. If the user sees the weapon, that's enough for an Id (Medium).

Sonic Vehicle Id Profiles:

With a hearing perception roll the character can correctly identify the make and year of a vehicle (medium).

All the Answers to 20th

Century Trivia Board Games:

Great for bar bets and retro-evenings (if you want to cheat). It claims to have all of them . . . but on a critical failure (a 19 or 20) it'll miss a question.

20th Century Music Archive:

High fidelity, full versions (both live and recorded) of all the songs your grandfather liked. If you have speakers you can play 'em. (large)

Accelerator Board

An indispensable programming tool, the “board” (a playing card sized, molecule thin plate which is inserted into the space between the brain lobes) allows the character to perform computer tasks at computer like speeds. It allows programming, debugging, and manipulation of data to happen hundreds of times faster than a human with a keyboard could perform the operations. Because some things, like creative thought, can’t be sped up by the board the net effect may not be the 100’s of times improvement one might hope for but it will be something few computer programmers wish to do without. The RES bonus is *only* for purposes of buying Computer Skill.

On a 4+ failure (or natural 19 or 20, roll once per day of coding) on a computer roll using the board, the character will be ‘stuck in a loop’ or ‘crashed’ and will be in a coma until unplugged. After that, the character may make a RES roll each hour to recover. If one of these rolls is critically failed, the character suffers brain death.

A “spike protector” can be purchased for +2 points—this prevents a “crash” on a 10- roll (it has a 50% chance of averting a crash).

Accelerator Board	RES +	Speed Increase	Requires	Cost
Mark 1	+1	4x	Mk 1 Jack	4
Mark 2	+2	8x	Mk 2 Jack	8
Mark 3	+4	16x	Mk 3 Jack	24

Cybernetic Computer

Cyborgs can have complicated logic gates built into their central nervous systems. This may be done by actually “growing” the artificial pieces within the living tissue, “grafting” in integrated circuits, or by some other method of interfacing. While all cybernetics rely on computers, this modification actually gives the cyborg a built in full functional computer system which can run off the shelf software. Although it’s input must come from a “modem” or the cable connected to the cyborg’s socket and the “screen” is displayed in the cyborg’s field of vision. There are three basic types of computers available. All are assumed to be state of the art in terms of power and ability to run consumer software.

Mark 1 Computer

The Mark 1 computer is capable of running all consumer-grade software normally. It must be linked to a network via a cable that runs from the cyborg’s “jack” to a network connection (a phone line or high-speed network link). Its data transfer rate is considered to be “slow” meaning that it receives and transfers data at the “standard speed” (today that would be a 128K modem, but it will be whatever the standard is for the time). While using the Mark 1, the user is at –4 to visual perception rolls (or other actions requiring that the character see—the graphics are displayed in the visual field).

Cost: 2 points **Requires:** Mk 1+ Jack

Rumor had it that something in the development environment on the Aztec’s Sagittarius project made a mind-crash about 10x as likely . . . but that didn’t lessen the flow data-mercs willing to work on the project.

Still, after two fatal neural spikes in under six months, even the rashest of the contractor “cowboys” started getting nervous.

Specialty Software:

Although too complicated to cover in detail here, many cyberpunk campaigns can revolve around the PC’s trying to get their hands on some new software. In many cyberpunk games software is the equivalent of magical treasure . . . and the GM may even require points be paid to have some exotic programs on your computer (which, of course, are somehow resistant to copying!) Some possible examples:

Military Super Virus: A one-shot weapon (it erases itself off the originating system when it infects) which will help win the war the characters are in.

Mark 2 Computer

The Mark 2 computer functions as the Mark 1 with the following additions: it has a cellular modem that transfers at the “slow” speed (but does not require a cable to link to the network). With a cable it transfers at an “above average speed” (ISDN links in today’s world . . . perhaps T1 speeds). The user is at –2 to vision based activities while the computer is in use (it displays data “below” the field of vision). The Mark 2 computer can record all of the user’s audio/visual input. It will record up to 8 hours (starting or stopping is a 5 REA medium action). It can set up encrypted communications links with others that have similar computers within reach of the network.

Cost: 4 points **Requires:** Mk 2+ Jack

Mark 3 Computer

The Mark 3 computer is artificially intelligent. It will have its own personality and it can make commentary, use the cyborg’s perception to make perception rolls, etc. It cannot take command of the character’s body and it won’t actually have skills (although databases can be purchased for it using the costs under Chip Slot). It gives the user +4 to any MEM roll to remember something that happened within the last 72 hours. Its link speed is “fast” over a line (fast being T1 to T3 speeds in modern day—literally as fast as you would want) and it is “above average” over a cellular net. It can act as a compass and it stores almost all available maps.

Cost: 8 points **Requires:** Mk 3 Jack

Ranged Computer Link

The ranged computer link is a combination of a device called a “Shotgun-S.Q.U.I.D.” and an “EMP Affector.” Together these strangely named devices read the internal state of a target computer and, at range, allow the user to manipulate it. The effect is that simply by targeting a computer system a character can “log on” to it without having to be hooked up! Even systems which have *no* provisions for being used by a human at all (like the chip inside your car or washing machine) can be probed and manipulated this way.

To take control of a system in this manner the character spends a 5 REA medium action to read the data and then may use Computer Skill at –6 (–3 at Level 3, no negative at Level 4) to manipulate data in the system. Because the character isn’t seeing a nice screen with windows and text on it—he’s seeing the binary stuff *inside* the computer—all operations take 4x their normal time. If the GM rules that a system is “very unusual” or complicated there may be extremely high negatives to the character’s rolls to do anything at all . . . even to figure out what’s going on (on the other hand, simple appliances are usually at +3 to be operated this way).

Keys to the Vault:

A character has stumbled across a compressed, encrypted program which, on a Mk 3 computer will access a massive, privately owned database everyone wants in to.

Meta-Avatar: Everyone in cyberspace is represented by his or her “avatar.” You’ve stumbled across a prototype piece of code that, when it runs, gives you super-human powers in cyberspace. Time to avenge some corporate wrongs!

Computer Defense

Countermeasures: In the underground scene, credibility is based on how many systems you can crack and what databases you’ve penetrated. This new software you’ve got isn’t the last word in security-breaching code . . . but it looks to be a hellu’va lot better than “Battering Ram v3.11”—you’ve gotta get a few of your close friends together and do a run—before every “32-bit” punk on the street has this.

What the Heck is a Shotgun-S.Q.U.I.D.?

Ah, glad you asked. A S.Q.U.I.D. (Super Conducting Quantum Interference Device) is a real piece of gear that can detect micro fluctuations in magnetic fields (like those inside a computer—or even a human brain). Today it needs to be a few inches from the source. A Shotgun microphone was a term for some of the first parabolic directional microphones—i.e. those microphones that operated at a great range with a focused pick-up.

So a shotgun-S.Q.U.D. is a device that, when focused on a computer system, can analyze the electronic state of the machine and report it to the owner . . . and it can do this from across the room!

Of course, security systems and important computers (like the one that controls your car's timing—or one that controls a security camera) will be *shielded*. This shielding prevents the character from reading the computer's data. They may also have *security*. Security, in this case, is electronics that detect the pulse the character uses to manipulate the system's memory.

To see if security detects you, make a skill roll (detailed below) at some negative for the complexity of the defenses. If you succeed, you've managed to remain undetected for a certain amount of time before you have to make another roll. You've also granted yourself a certain amount of access. If you want to do something which requires more access or the time period expires, roll again.

Amount Roll Made By	Access Granted
-5 or less	System "scrambles" and sounds any alarms available. The character can't get back in for 4 hrs.
-1 to -4	System goes on alert. The character gets <i>one</i> skill roll to stop alarms. If made, the character averts detection but subsequent rolls for 4 hrs are at -4.
+0 to +2	Character has low level access. For complicated systems this may be useful—for things like computerized locks it won't open them. After an hour of poking around, another roll is at +2.
+3 to +5	Character has medium level access. This will open standard locks and give access to most databases and functions. After 30 min of poking around, another roll is at +2.
+6 to +9	Character has high level access and can do anything an administrator could.
+10 or more	Character can reprogram/wipe the whole system and can make it do things it wasn't intended to do.

Skill Rolls: The skill roll a character may make to hack the system is either Computer Skill (at -6 for a Level 2 attempt, -3 for a Level 3 skill, or -0 for Level 4) or Security Skill at Level 3+. If the character has Security Systems skill at Level 3 or greater, he is assumed to be familiar with computer defenses. This means that he rolls at -0 for Level 3 and gets a +2 for Level 4. Standard security modifiers for some common systems are:

- Standard "Street Security System" -2. Sounds an audio alarm if detected.
- Standard security system on a car or public phone/access terminal -3. Detection of security breach signals the user or shuts down the terminal.
- Security Building (mid-level) -4. If detected the cops are called.
- Security Building (high-level) -6.
- Home Security -2 to -6 (usually).
- Appliance: No security.
- Police Vehicle and onboard computer: -5 for the vehicle, -7 for the computer. Detection triggers a silent alarm.

Okay, What About a Pulse Affector?

This isn't real. In theory, it's a very controllable EMP (Electro-Magnetic-Pulse) generator that can be used to delicately overwrite the memory of a computer while the computer is in operation.

How is this Supposed to Play?

Okay, your friends are planning to raid a small video distribution warehouse they say has been shipping short-life-span (but very nasty) 3rd World virus bombs to the West Coast. They need you to help with the security systems.

You've got some standard tools: some electronics and lock picking gear, some rope . . . a small bow torch . . . and your cybernetics. When you and your friends show up outside (at 1 AM) it's time to go to work.

The back door has a standard key-card lock. A simple Security Systems roll will get you past that. The GM says it's at -2 (a pretty good one) but you have some nice tools (+1) so you slide your "omni-card" in and just "hack it." That's the first line of defense.

Inside is a newly installed "air-lock" chamber and a retinal scan. Retinal scans are checked against computers so you can't just "hack it." You target the computer

You make a Computer skill roll at -6 (-3 'cause you're Level 3) and have a look in its memory. Then you "pulse it." It has -4 security but you get +2 to the roll for your Mk2 link. You make the roll by 6. You're in!

- Someone else's communication gear: -2 per level of *security*.
- Implanted database in a cyborg's head (or cybernetic digital "videotape") -3 or more. Detection signals the cyborg and shuts down access for 2 hours.

Affector Burst: A character with a remote computer link can also turn the voltage on the Affector and simply try to burn out a target system. This is treated as a Psychoelectric attack (see the Psionics section) at a POWER equal to that listed by the device the character has (with the exception that the cyborg *cannot* make the targeted device function without power, *and* the attack only applies against computer systems.) Against a target cyborg this will act as a *Daze Beam* at the listed POWER. This will only affect cyborgs with a *cybernetic body*, a *reinforced skeleton*, a *hardwired nervous system*, or a *neural jack*.

Shielded Systems: Some systems are actually shielded against intrusion. In these cases, simply multiply the *effective range* by 2, 4, or 8. This will force the cyborg to be a lot closer to the action. If the system is effectively outside of your maximum range, you can't get in.

Remote Comp. Link	Range	POWER	Plus to Security Roll	Requires	Cost
Mark 1	4 yards	0	+0	Mk 1 Jack	8
Mark 2	16 yards	13	+2	Mk 2 Jack	16
Mark 3	64 yards	16	+4	Mk 3 Jack	32

Sensory Filters

The character's neural enhancements filter all sensor input through a series of computer pattern matchers and storage trees. This gives him a bonus to perception at a cheaper cost than Keen Senses. The downside to this is that the computer-enhanced senses can "go into a loop." When active (the player declares when his senses are active) the player rolls once a minute. If during this time, the random roll is a 0, 1, or 2 *or* the character blows a perception roll by 5, the character is Dazed, loses the enhanced senses, and makes "normal" perception rolls at -4 for 20 minutes. These bonuses apply to *all* senses and have some additional abilities:

- Detect bio or chemical weaponry in the area via smell/taste.
- Target Tracking/Identification: ignore -4 for visual identification (seeing through disguises, picking a person out of an auditorium, etc.) Called "Waldoing" for some archaic reason.

Sensory Filters	PER Bonus	Requires	Cost
Mark 1	+3	Mk 1 Jacks	4
Mark 2	+5	Mk 2 Jacks	8
Mark 3	+7	Mk 3 Jacks	12

The DataNet and the Fuge

The world of the cyberpunk will be connected by massive data-trunks that anyone can tap into if they have a computer, the skill, and maybe some help. Virtually everything is in there somewhere—or someone knows how to find it. It's accessible from just about anywhere on the planet and neural-modified cyborgs live there. To purchases these abilities you must have a Mk 2 Neural Jack or better.

Anyone with computer skill and Electronic Underground and a net account can interact with the DataNet. That's just a matter of know-how. Interacting (Fugue Dancing) with the Fugue is another matter altogether. First you need training (and you usually don't get it in university classes). Secondly you need a piece of hardware in your head that takes the data in and filters it through your brain. That's called an Information Sieve.

To be a Fugue Dancer (or whatever the GM decides to call it) you need three things:

- A Mk 2 Neural Jack (or better)
- An Information Sieve implant
- The difficult, RES based Fugue Dancer skill

Once you've got that, you're ready to go. If your character is a "hacker for hire," a net savvy street agent, or corporate cyber-muscle you should consider getting outfitted for some *real* data analysis.

Information Sieve

The cyborg's neural jack is permanently online with a high-speed connection. The character's brain functions like a computer, constantly filtering and analyzing the data flowing through it. All kinds of information, private databases, hundred year old Usenet conversations, unencrypted net-telephone, and declassified (or "liberated" classified) government documents merge into what is collectively known as the Fugue. The Fugue (perhaps named for the musical reference—or perhaps the state of mind) is meaningless information overload for those not equipped with a Sieve. With the Sieve it is like an almost omniscient deity—one which the equipped can access.

The skill with the I-Sieve is Fugue Dancer. It is a difficult RES based skill. What it does at each level is based on what kinds of modules you have built into your I-Sieve.

To make a cyborg with access to the Fugue, do the following:

- Buy Fuge Dancer, a difficult, RES based skill. It has no description but its roll and level effects are determined by what *modules* you have.
- Buy the modules you want from the list below.

The DataNet and the Fugue:

The DataNet and the Fugue represent two "likely" advances in computers.

The DataNet

The DataNet is an evolutionary development of the Internet. It is the global network of interconnected computers, microwave relays, satellite links, and cellular towers that make all kinds of commercial channels possible.

Everything from videophones to real "cyber-sex" is available on the DataNet. A huge amount of information is there, cross-referenced and available through "search engines."

Electronics Underground is the skill that is used to get at the juicy bits of information on the DataNet. That's where your shady underground connections will meet. That's where corporate "cowboys" will congregate electronically to raid the opposition's databases.

The DataNet may or may not be a 3d virtual reality world where "surfers" are represented by their computer-generated avatars as they interact. It might be a lot like a multimedia version of today's World Wide Web. Some of it might be 3d and some of it might still be scrolling text screens. It all depends on what the GM's vision is.

You don't need any special gear to access the DataNet—just a terminal (cybernetically built in or otherwise) and your clout is proportional to your computer skill (Level 3 for breaking into systems the hard way) or Electronic Underground (for getting information someone else already had).

Identify Target

Cost: 8 points

When the character sees someone, their image can be instantly cross-referenced with the Fugue databases. The cyborg will know who that person is and get some information on a successful roll with their Fugue Skill. Since the trace works against databases, some people are harder to find than others. A person who has little to do with the online world is regarded as obscure. A person who deliberately (but not professionally) keeps themselves out of the online world is “deliberately” obscure. The trace is a 5 REA medium action and the person must be seen personally.

Level 1: The character knows the name and listed address of the target (personal items like phone number and place of employment can be found if the target makes that information publicly available). If the target is

“obscure” in online circles, the roll is at –5 or –10 (if the target is deliberately obscure).

Level 2: The character knows facts like place of employment and criminal record with a successful roll even if these aren’t publicly available. Rolls against obscure targets are at –3 or –5. Identification numbers, concealed weapon permits and the like will be divulged.

Level 3: The cyborg gets information like recent travel plans, information on recent activities, etc. For obscure targets there is a –1, for deliberately obscure targets, a –3.

Level 4: The cyborg learns almost everything there is to know about the target. There is a –1 for deliberately obscure targets but that is all.

Net Trace

Cost: 4 points

The cyborg “targets” a person and begins monitoring their movement, transactions, etc. This involves dispatching “computerized” agents who keep track of travel reservations, credit card expenditures, and other electronic communication they involve themselves in. This information is reported back to the cyborg. To “establish lock-on” with a target the cyborg must do a certain amount of electronic research on them. Oddly, due to the nature of the data Fugue, personal contact with the target greatly aids this (things like voice imprints, the visual data from the cyborg, and actually confirming the person at a given place at a certain time relative to the searcher seem to help). The level of Fugue Dancing determines how successful the trace is if the roll is made. Rolling to obtain lock-on is at +3 if the cyborg meets the target in somewhat casual circumstances (i.e. not through a locked door or video monitor or phone conversation). Each day the cyborg must make another roll to maintain tracking. The roll is at a cumulative –2 if the target takes care to obscure his movements. Tracking more than one person at a time requires either another Net Trace rig

(another 4 points) or a cumulative –1 per person per day additional. Picking up someone who has been lost is a –4 roll.

Level 1: If the target uses his real name, hotel rooms, flights, and public purchases (a house) will be reported as soon as they are made. The basic lock-on roll is at –6 if the cyborg has nothing but a name and id number. Three hours of research will reduce this to a –3.

Level 2: The cyborg will be able to trace any credit expenditures the character makes in his name with a –5 roll (the GM rolls secretly for each transaction). A basic roll, if the cyborg has nothing more than a name and id number, will locate the target geographically. If the target is using the data net for communications (the GM must determine if normal phones do-and if their use can be traced to a personal computer account) then he will be detected and tracked to within a certain radius. The amount the roll is made by will be a 20 mile radius divided in half for each point of success (so a roll made by 4 would limit the target to a 1.25 mile area). If the roll is made by 5+ the tracer has an exact fix.

The Fugue:

The Fugue is something else—something we don’t have today.

In the future of the Fugue, the network has become so complicated and so fast that no one really understands its transactions. Data is exchanged and mixed so frequently that in some cases the complexity is beyond that of a human mind (currently the most complicated structure in the visible universe).

Although no one really understands the low-level mass of information exchange which happens a billion times a second all over the globe, a piece of gear and training can give you an *out of context perspective* on what is known as *The Fugue*.

The piece of equipment—the **Information Sieve**—accesses the underlying communications of the DataNet and uses super-advanced mathematics and the human mind’s incredible ability to make sense out of chaos to learn things about the world by linking random pieces of information which are hurtling about the net at the speed of light.

When someone has an I-Sieve and connects to the Fugue it’s a little like talking to an interactive Oracle of Delphi. You can learn things like “who’s asking questions about us?” or “Who’s that guy I’m looking at?” just by cross-referencing the information of the Fugue.

At its most amazing, a user of the I-Sieve can phrase a question in such a way that, as the data is introduced into the hyper-dynamic flow that is the Fugue, an answer of some validity can be received. The sources of the data may not be known.

Level 3: The cyborg can track even illicit transactions on a -5 roll (normal credit transactions get no negative). People the target meets with may be tracked on a -3 roll (due to reservations at restaurants). There is even a chance movement may be picked up. The GM can roll once per

hour at -8 to see if the cyborg gets a "fix" due to some electronic interaction (hailing a cab). Rolls per day are at -1 instead of -2.

Level 4: The cyborg has an eerie, clairvoyant like fix on the target. Rolls at -4 can be made for almost *anything* the target does.

Net Augury

Cost: 8 or 16 points

On the net, anyone may ask a question. You may receive hundreds of replies ranging from informed commentary to wild ranting to sophisticated hoaxes. With access to the Fugue answers may even come from anonymous sources or a person may put together information, which, while seemingly unrelated, is a coherent answer to the question. Using the Fugue is called a Net Augury and it is taxing to the user. Doing a search of the Fugue and determining which information is high quality takes a long time (depending on how skilled the user is) and costs a certain number of endurance points (and leaves the person drained). However, almost *any* question may be asked and answered—even some, which no single person might know the answer to.

The GM must determine if the answer is easy, medium, very hard, or nearly impossible. An easy question is one which research in a large library could answer. A medium question is one which an expert could answer, a very hard question is one for which the information likely does not exist ("where is my lost dog?") and a nearly impossible question is one for which there may be no correct answer ("Is there a God?").

The 8 point search cybernetics work as listed. The 16-point version reduces the time it takes to ask a question in half.

Level 1: Only yes or no questions may be asked and only up to medium difficulty. The search takes about 4

hours and costs the user 10 endurance through massive concentration. This is spent by the time the questioning is over. A skill roll must be made for an easy question, a skill roll at -3 must be made for a medium question. The GM should make this roll in secret . . . but the character will usually have some idea of the quality of the answer.

Level 2: The character may ask question to which the answer is likely to be a short sentence. The character may ask an easy question at +3 in 10 seconds, a medium question at +0 in 2 hours, and a difficult question in 8 hours for a cost of 10 endurance with a roll at -4. Note that easier questions may have a much more substantial answer.

Level 3: The character may ask a question to which the answer is a chapter in a book (a 20-page report is about the maximum). Easy questions are at +3 and take 1 second, medium questions are at +3 and take 10 minutes, difficult questions take 4 hours and are at -2, nearly impossible questions take 8 hours and are at -10 (and cost 10 Endurance).

Level 4: The character may ask any question. Easy questions are automatic and take a second. Medium questions are at +6 and take a second. Difficult questions are at +0 and take an hour. Nearly impossible questions take 4 hours and the results are up to the GM (remember—the answer can be that the data is simply not available . . .)

Interfacing with the Fugue in this way is called "Dancing" and it requires both the "multi-phase neural link" and no small amount of skill in entering the raw data stream and returning with useful data.

What's the Difference?

Okay, lets say you just met someone. You know their name, you have their business card. They want you to buy several tanks of illegal "computational DNA." Your question: who is this guy really? And, is he trying to screw me?

Using the DataNet:

With the DataNet, you excuse yourself for a second, whip out your portable computer (or use your cybernetic one to log on) and go to some of the underground electronic hangouts. You send e-mail to your cyber buddies asking if they've ever heard of this guy.

You do some newspaper article searches (worldwide) seeing if any of this stuff was reported stolen (and if there are leads).

You contact your hacker friends (or maybe you are one) and you raid some corporate databases to see if they have any sting operations going.

You have an agency run a background check on the name he gave you (good luck).

This takes some time—but less than it did in the 20th century. A good "make" on someone takes about an hour instead of a day. Your friends can get back to you in a couple of minutes. If the guy covered his tracks well . . . or you failed to ask the right questions you might not get the right answers (the tanks were reported as discarded

Electronic Countermeasures

Cost: 8 points

Let's say your being traced . . . or someone with net augury is asking questions about you . . . or a cyborg you've just met is trying to ID you when you'd rather remain anonymous. How do you do it? Counter-measures. These work two ways: passively and actively.

In passive mode you have your own agents out in the Fugue and on the net which send bad data about you, inform you if someone is asking questions, and generally work without your having to be involved. In active mode you perform a "scrub" for yourself (or someone else) and wipe out the agents or the database entries which others are using to track you. This can't erase your ID from the Fugue (there are only unsubstantiated rumors of things that can do that) but it can make anything less than a Level 3 or Level 4 Net Augury likely to turn up nothing.

The character has "trip-wires" in the Fugue to detect questions about

himself. If someone starts running a trace he gets a skill roll at +2 or -2 per level of difference between himself and the asker (+2 if the character with countermeasures is higher level . . . -2 if he's lower). The GM makes this roll. If the character detects the questioning he may try to interfere.

To interfere he must beat the amount the question roll was made by (this applies to Net Auguries. Traces, and Identifications. If made by 0 - 4 the search simply reveals interference and the person attempting the search can get no new information for 24 hours and will be at a permanent, cumulative -3 against that target. If the roll is made by 5 to 9 the character can control what information the target gets—but if the target asks for some information that the character withholds the target will know the data is being filtered. If the roll is beaten by 10+ the defending character can create his own answers.

Communication Technology

A cyborg with neural cybernetics can tap into the data streams around him. This can allow him to make untraceable calls, tap into other's streams, and evade detection. These pieces of cyber-gear *don't* require Neural Jacks or any other piece of tech.

Bolo

The Bolo is an illegal piece of gear which, when activated disrupts all communications and some electronics in the area. Security scans will usually detect that it isn't a weapon—a person searching for it needs to have Streetwise at L3+ . . . and a character with a Bolo can take it "offline" for 24 hours and it will simply detect as some sort of radio.

When activated, a bolo burns for a listed number of seconds. While burning all com-gear of a lower level than the class of bolo will be shut down within the listed radius.

Furthermore, the Mk 2 and Mk 3 bolos emit an Electromagnetic Pulse (EMP) which will temporarily shut down unprotected circuitry. If the GM rules

that some piece of gear is particularly unshielded it may even burn it out. Standard security systems and electronic gear in the area will be shutdown if the listed roll is made. If the GM rules a system is "hardened" the roll to shut it down is at -1 to -10 (really serious systems won't be effected by a bolo). This *only* works against things like cameras, personal computers, and the like. It won't stop cars or turn lights out—it doesn't kill all the power in an area . . . it just causes it to fluctuate. A Bolo is primarily used to give an assault team some time before the security teams figure out exactly what is happening. Activating a Bolo is a 5 REA medium action—it can be shutdown before its time runs out if the character wishes.

Bolo	Radius	Time	EMP Roll
Mark 1	20 y	12 sec	--
Mark 2	40 y	24 sec	13-
Mark 3	80 y	48 sec	18-

The Fugue Way:

You're a trained Fugue dancer and you're looking at the guy. You load the data (what he looks like, when he came in, the fact that he reminds you—sort of—of that old actor Fred Astaire) into short-term memory and you enter the Fugue.

There you let it interact with the data-stream. You want to know who he is . . . you want to know how the information on him "intersects" with data about the stuff he's selling. You aren't asking anyone in particular—you're swimming in the massive storm of data that is the Fugue and looking at the "data shapes" which bubble out of it.

Interesting . . . coursing through your brain is the fact that he got off a plane in San Francisco two days ago—with a man accused of being a professional killer in Europe.

From his face, the Fugue tells you with 98% accuracy that his name is Kameron Tsauras . . . a.k.a. Gary Vault. That's the name he gave you. Kameron has a home listing in Malibu. Where exactly that data came from you don't know—but you know the facts.

You feed the answers back into the Fugue and ask about stolen DNA tanks. The strain on your mind increases as you sort gigabytes of meaningless data looking for the threads of relevance. Of course there've been some stolen . . . but these probably aren't them. No . . . Kameron has a close relationship with a company that *makes* the things—and is working on a risky new prototype: you're an underground test market!

Com-Gear

Cybernetic communications gear is very common. Troops will have built in radios. Common citizens will have internal cell-phones. Hackers will come equipped with their own modems and cops will be wired into police channels.

The most important aspects of these communications are their signal strength (how easy they are to jam) and their security (how easy they are to detect or intercept). Both security and strength is rated from Mk1 to Mk3.

Signal strength determines range for things like radios (if the communication device hooks into the phone network or the DataNet its "range" is effectively infinite). This rating is also used to determine if the piece of com-gear can be jammed by a bolo.

Security is used to stop people from listening. At Level 1, the conversation is as secure as a standard phone connection—not very. At Level 2 the piece of gear has weak encryption. At Level 3 the gear has strong encryption.

Types of com-gear are:

Radio: The character can broadcast and receive on several bands. The

character can receive both "citizens band" and local AM/FM stations. Cost is +0.

Cell Phone / Modem: The character can hook into the world's phone net if a receiving station is within range. The phone acts as a "normal" modem. Cyber phones are assumed to do conference calls and have all the modern amenities. Cost is +0

Fast Modem: This acts like phone and as a "fast" modem. The GM must determine what fast is but it should be significantly faster than a normal modem (modern day this would be 128K vs. 57K). Cost is +1

Very Fast Modem: This acts as above but the connect is *really* fast (T1 speeds in today's world). Cost is +2

Tight Beam Radio: So long as the receiving character is in range and the sender knows exactly where he is (i.e. can see him or is in contact) the signal can't be intercepted unless the intercepting character gets between the sender and receiver. This is a favorite of troops and tightly knit teams. Cost +4

Strength	Range	Cost
Mk 1	100 y	.5 pts
Mk 2	100 mi	2 pts
Mk 3	Satellite	4 pts

Security	Cost
Mk 1	1 pts
Mk 2	2 pts
Mk 3	4 pts

Detecting Communications and Telling if Someone's Listening:

Any level of decryption gear acts as a scanner. If you want to know if a target is transmitting, make an Operations roll.

If you're talking and you want to know if someone's listening in you can either make an Operations roll (if made, you detect listeners on the line) or a Security Systems roll at +2 (if you're Level 2 or above).

It is possible for a character to set his com-gear to security mode where an Operations roll is made every time it's operated to "sweep the channel." If this is the case, the GM makes an Ops roll like a perception roll for any character on the line.

Note: It's possible some gear may be *stealthy*. The GM can assess a cost of 2 points per level of *stealth*. Ops rolls to detect the listener are at -1 per level of stealth.

Decryption Gear

When someone's having a conversation you want to listen to Decryption gear comes in handy. To be really good with it, you have to have mathematics skill—sure, you aren't doing all the math "on the fly" but it helps to have an idea about what's going on. If you've got L3 Mathematics skill you can use your roll instead of the listed one. If you have L4 Mathematics skill you can use your roll at +6.

To lock-on to someone's communications you need to make an Operations skill roll. If you don't have the skill, the gear comes with a scanner that has a basic 12- skill. Once you've acquired it (if you miss it, roll again at a cumulative -2 . . . if they

have operations too you've gotta fight it out).

Next compare your "breaker" against their security. If you've got the same level you get a decrypt roll. If you're breaker is lower the roll's at -3. If your breaker is a higher level you get a +3. If you make the roll you're listening in. If they're perceptive and they have Operations, you're in for a fight.

Decryption Gear	Decrypt Roll	Cost
Mk 1	13-	4
Mk 2	15-	8
Mk 3	17-	16

Glands (Genetic Modification)

Perhaps the “wettest” of Wet-Mods, Cyber Glands are the result of post-birth genetic manipulation or surgical incision (they may also be “pre-birth” genetic manipulation in which case the character may actually be a new species. These glands tend to have downsides to them and are often little more than drug factories for the user (indicating that they would have been pursued for military purposes). If the GM wants a less flawed view of genetic manipulation, the PC's should simply be built on more points or allowed to buy the Fast or Built Enhancements.

Unlike the other Wet-Mods, Glands have no requirements for purchase. They may be considered special Enhancements available in a cyber-punk world.

Wrath Glands

The character has specially modified adrenaline glands that produce a drug called Wrath. This is a combat drug that is designed to have a number of beneficial effects (extended endurance, some resistance to damage, higher STR, etc.) It was invented for close assault teams, but was considered a failure due to the crash. It has made an appearance on the streets. The side effects are as follows:

- Going into “Wrath Mode” requires a 5 REA Medium action.
- In Wrath Mode, the character must make a WIL-2 roll each turn not to engage in HTH combat if a combatant is within 3 yards (Long Reach). In HTH mode, the character must Full Strike or make WIL rolls each turn to save REA for a block. So long as opponents are at range, they may be engaged normally with weapons, but weapons will be fired in full automatic mode if available. If there are no enemies, the character must make WIL rolls or respond violently to any annoyance. If a roll (once per 30 min) is failed, the character will pick a fight.
- Wrath Mode lasts a certain time depending on the glands type. When that time runs out, the character will be at -3 Initiative, -2 to all skill rolls, and -8 Endurance (the character “crashes”). This lasts 10 minutes HR per second the Wrath lasted. Multiple uses of Wrath in a day have an addictive, degradative effect. Each new dose of Wrath makes the Crash roll at a cumulative -1. A character can gland himself to death.
- Since the character's DP is “increased,” and the increase goes away when the character crashes, if the character sustained damage, he must make a CON roll (at -1 per each dose of Wrath that day) at the current Condition Level he is at *without* the extra DP (i.e. if the character is at Injured Condition without the extra DP, he makes a Major Wound roll when he crashes). Even if the character sustained NO damage, he must make a Minor Wound roll, or take another dose
- Character's under Wrath get +4 to WIL rolls vs. Fear and the like.

Wrath Glands	DP Bonus	Endurance	STR	Duration	Cost
Mark I	+4	+4	+1	1 hr	8
Mark 2	+6	+16	+2	2 hr	12
Mark 3	+8	+32	+4	4 hr	16

Cool Glands

Another combat drug, the character becomes extremely unemotional and “coolly aggressive.” In tests, this has resulted in increased accuracy, lack of fear in combat, etc. Cool has two negative side effects: Cool Psychosis, and Addiction (described below). While Cool lasts, the character gets the following effects:

- Extra REA *for purposes of Feinting or Aiming only*, bonuses to CON rolls (psychological factor), bonuses to Perception Rolls (due to concentration), and bonuses to block or dodge rolls for the next 6 hours.
- The character is immune to psychology and psychology attacks. The character gets +4 Fearless. Characters under “Cool” will seem highly aloof and unconcerned. They will operate flawlessly under stress. This lasts 6 hours.
- The effects last for the duration after which the drug wears off and repeated doses have no effect for 6 hours.
- The character must make a WIL roll each time he uses the drug. If he fails by 5+ he becomes psychotic (under control of the GM). He is not necessarily a murdering lunatic—but he might be. Such characters will still be mission oriented in general and, unless tensions are very high, won’t kill their friends. This lasts 6 hours.
- Cool is addictive: if three rolls are blown by 3 or more in a 1 month period, the character becomes an addict. An addict must make a WIL roll at –2 every 6 hours or use the Gland. This isn’t so bad, but it does remove use of the gland for the following 6 hours. Rather than rolling each 6 hrs. the GM can call for a WIL roll at –2 to have the glands available. Also, some percentage of the time, the character may be a cool psychopath.

Cool Glands	REA Bonus	CON Rolls	PER Rolls	Block/Dodge	Cost
Mark 1	+1	+1	+2	+1	12
Mark 2	+2	+1	+3	+1	16
Mark 3	+3	+2	+4	+2	20

Maniac Glands

Maniac is a form of evolved adrenaline that speeds up the body’s clock making the character faster. While under Maniac, the character gets extra REA. The downside is that when it wears off, the character will crash as with Wrath. While active the character will have the Intellect Defect: Hyperkinetic (unable to sit still unless a WIL roll at –2 is made).

Maniac Glands	Extra REA	Extra Initiative	Duration	Cost
Mark 1	+2	+1	20 min	10
Mark 2	+3	+2	30 min	16
Mark 3	+4	+3	1 hr	22

Resurrection Glands

The character's body is flooded with a complex, intelligent, regeneration formula. The character gains +2 DP each second he spends 8 REA (while the formula is active). If the character doesn't spend the REA to heal, the body metabolizes the formula getting +1 DP per second. Once this is done, though, the character will start paying the price. In [random roll] minutes after the glands effect, the character will start losing 1 Endurance point per 10 seconds per point of damage he healed. If his points healed are double his Endurance, he will go unconscious for 4 hours. It takes a 5 REA Medium action to activate the Resurrection Glands. They will auto-activate if the character hits Serious Condition (or takes a Critical Wound).

Resurrection Glands	Duration (Maximum DP)	Cost
Mark 1	4 seconds	10
Mark 2	8 seconds	16
Mark 3	12 seconds	24

Alert Glands

The character's senses are heightened by the drug. Once activated (5 REA Medium action) the character gets the listed bonus to all perception rolls, but pays 1 point of Endurance per minute (Running). This can't be stopped (it runs the listed duration, or less—but the character must specify the time when it starts). The bonus is +2 vs. low-light modifiers (in addition to the bonus listed, when active, the character ignores 2 more points of low-light modifiers).

Alert Glands	Duration	PER Bonus	Cost
Mark 1	4 min	+2	4
Mark 2	8 min	+4	8
Mark 3	16 min	+6	12

Neo-Steroids

Unlike most glands, these don't have to be activated: they're always active, pumping out steroids into the character's blood stream. While a constant supply of organic steroids, growth hormones, and other chemicals makes the character stronger, they have some nasty side effects. The primary one is the fact that the pumped up person moves a little slower than normal and has less endurance: you get a negative to Initiative and Endurance. The second one is the Intellect Defect Aggressive: make a WIL roll in any confrontational situation not to start a fight. This is at +3 if you'll obviously and clearly lose (i.e. they have you surrounded with guns). Also, while your immune system is "stable," it spends a lot of time dealing with the chemicals: you get -2 CON vs. disease and toxins. Finally, the BLD bonus is applied to SIZ as well (you look larger too!).

Neo-Steroid Glands	STR	BLD	DP	Init.	End	Cost
Mark 1	+2	+3	+3	-1	-2	6
Mark 2	+3	+4	+4	-1	-3	12
Mark 3	+4	+5	+5	-2	-4	18

Dry-Mods

Weapons

Cybernetic weapons are usually part of a broken down, nihilistic culture where “body art” has “evolved” from making a statement into annihilating those who don’t agree with you. There are a few advantages to cybernetic weapons (aside from the one compelling reason to own one: it proves you’re a bad-ass).

The best is that you don’t have to draw them (unless they’re “retractable” which makes them concealed when they aren’t in use). They also ignore –2 points of modifier from grapples—they’re easier to use hand to hand because they’re built in (most people don’t grapple with armed cyborgs anyway, though).

This list is by no means exhaustive but it should be noted that the cost of the weapon is simply based on “relative” merit—there is no “formula” for reducing the cost. If a super hero wishes to duplicate the weapons listed here, like the other cybernetics, it will have to be done using the device rules and the paranormal abilities list.

There are two categories of weapons listed here: Civilian and Military. Civilian weapons are legal in any game that the GM wants cyborg weapons in. They’re designed to be somewhat balanced. Military weapons should only be allowed in games where heavy firepower is the norm. Cyborgs blazing away with Heavy Rockets and Assault Rifles will greatly increase the body count.

Civilian Fire Arms	Cost	Damage	ROF	RANGE	NOTES	Shots
9mm Implant (rifled)	1pt	6	2	15 yds	-0 RCL	48
.45 Implant	1pt	9	2	7 yds	-0 RCL	32
.22 caliber cannon	1pt	3	16	4 yds	-¼ RCL	48
.357 Gyro-Jet (rocket rounds)	2pt	13	2	25 yds	-0 RCL	32
.44 Uber-Magnum Implant	4pt	16	2	9 yds	-3 RCL	24
9mm Full Auto	4pt	6	8	15 yds	- ½ RCL	32
.22 Long Rifle	4pt	18	2	50 yds	-0 RCL	32
10 gauge internal pump shotgun	3pt	2x12	2	9 yds	-2 RCL	12
.45 Full Auto	8pt	9	8	15 yds	-1 RCL	32
X-11 Flechette Crossbow	4pt	15 (pen: 40)	1 (silent)	25	--	80

Gladiator HTH Wpns. (Civilian)	Cost	Damage	Swing	Back Swing	Reach
Cyber Claws (retractable)	2	+3 (+6 Pen)	+0	+0	Short
Saw Blade (Circular)	4	+7 (ignores 4 armor)	+0	+0	Short
Laser Torch	8	8 POWER Cutting Beam	+0	+0	Short
Injector (14 PWR vs. STAT)	4 - 16	+2 (+6 Pen) 50, 100, 150	+0	+0	Short
Cyber Lash (Whip Skill required)	4	+6 damage Pen or Impact	+1	+2	Long
Shocker	4 / 8	8 or 12 <i>electrical damage</i>	+0	+0	Short
Pneumatic Rams	4	+5 Impact Damage (HTH)	+0	+0	Short
Razor Tentacles	4	8 Grapple, 8 pen dmg	+0	+0	Long
Disruptors	4	6 Pen Dmg, Ignores armor	+0	+0	Short
Combat Teeth	4	12 Pen Bite Damage	+0	+0	Close

- **Cyber Claws:** Cyber Claws may be used with any Martial Art strike (the Saw Blade may hit with martial arts striking skills, but doesn't get martial arts bonuses). They also ignore -4 points of Grapple Modifier.
- **Cyber Saw Blade:** This is a large circular saw blade that is not retractable (it can be made retractable for +2 points). It does not get martial arts damage bonuses.
- **Cyber Lash:** The Cyber Lash has a +3 STR grab and has statistics of 6 armor, 24 DP, STC of 14-.
- **Shocker:** The Shocker can be "turned on" or used as an HTH strike. If turned on, it lasts 6 combat rounds and regains one round of charge each 20 minutes. When active, anyone touching or touched by the character suffers the damage. When used in conjunction with a strike it drains half a charge. +2 points for 4x the number or charges carried.
- **Pneumatic Rams:** Pneumatic Rams have 20 charges per hour and are placed in the arms and legs adding +5 damage to punches and kicks (uses a charge). They can also be used to jump. A Jump requires an AGI roll at -2 or an Acrobatics Roll (+1 at Level 3) to land on target. The distance is Charges divided by Mass (plus normal jump) used. This leap is vertical, assume 2x distance horizontal. Each +1point adds another 4 charge battery. The Rams add 1 point of BLD. Each 4 batteries is also +1 BLD.
- **Razor Tentacles:** Razor Tentacles are retractable (5 REA Medium action to extend) weapons that have an 8 Grapple Score (and allow a Grapple as a 5 REA Medium action). When squeezing (5 REA or as part of a Lock) they have an 8 Grapple Score and do 8 Penetrating damage. For 4 points you get two tentacles with the above statistics. For each 4 points you can have another tentacle and +4 to your Grapple Score. Additional tentacles don't do extra damage. Razor Tentacles have the same statistics as the Cyber Lash.
- **Disruptors:** Disruptors are high-technology electrical weapons that are placed in the palms. With a strike or a grab the cyborg can discharge a "saw-wave" of ions that breaks up matter. A blow from the disruptor does 6 Penetrating damage and ignores all armor. Disruptors have a 9 charge battery. Each 1 additional point buys +2 charges. Certain materials are "electrically sealed" against disruption—the GM should rule that special high security buildings and such are immune. Disruptors take *no* Grappling modifiers.
- **Combat Teeth:** The character must use a Grappling Bite maneuver to do damage with the Combat Teeth. They extend the jaw and do things to the lips that will make the character Ugly. Once a bite is scored, the jaws lock on with a 15 Grapple Score. For each additional 5 REA Medium action, the character can bite again. Use the original to-hit roll and make another damage modifier roll. This is called Pit-Bulling someone.

Rockets (Lt. Is Civilian)	Cost	S-Cost	Damage		RAD	RANGE	NOTES	Shots
Heavy Anti-Personnel Rocket	16pt	45	24	4 yds	25	2x16 Shrapnel	4, +1pt per clip	
Light High Explosive Rocket	8pt	48	24	4 yds	25	No Shrapnel	4, +1pt per clip	
Heavy High Explosive Rocket	16pt	96	48	4 yds	25	No Shrapnel	4, +1pt per clip	
Light HE Grenade Launcher	4pt	18	12	4 yds	25	No Shrapnel	6, +1pt per clip	
Light AP Grenade Launcher	4pt	18	6	4 yds	25	2x8 Shrapnel	6, +1pt per clip	

Rocket Launchers add +2 BLD (Grenade Launchers add +1). Each Rocket Launcher the character has can fire once per turn as a 5 REA Medium action. The GM may choose to only allow the Grenades (if these are allowed at all). Even the “Civilian” versions are probably highly illegal. They can be licensed as “Fire Works Launchers.” Their damage is explosive.

Unusual Weapons	Cost	Damage	ROF	RANGE	NOTES	Shots
Dart Gun	4	4, ignores 4 armor, 8 Pen	1	25 yds	PWR 14 Medium	12
Dart Gun (heavy toxin)	8	4, ignores 4 armor, 8 Pen	1	25 yds	PWR 14 High	12
Dart Gun (super toxin)	16	4, ignores 4 armor, 8 Pen	1	25	PWR 14 Super High	12

The Dart Gun with the 50 point toxin is the only Civilian weapon. The other two are strictly military. The flame-thrower is considered Civilian.

Effect	Damage	Until Roll	Each
Minor Effect	¼ Base Damage	STAT	10 sec
Standard Effect	½ Base Damage	STAT	5 sec
Major Effect	¾ Base Damage	STAT –1	2 sec
Critical Effect	1x Base Damage	STAT –2	2 sec
Catastrophic Effect	1.5x Base Damage	STAT –4	1 sec

Eyes and Senses

Enhancing one’s senses is a good way to spend points on cyber-mods. In some game worlds, any enhancement can be purchased *after* character creation and considered a modification—want to be better looking? Get plastic surgery. Need better eyes? Have some grown. These modifications are generally machine pieces, though—usually they are mounted in the head or (perhaps) the hands or chest.

Virtually any sense from the paranormal’s list can be bought (ask the GM first though). Cyborgs usually pay full price.

UltraSound Security Scan

The sonic probe has an optimal range of 3 yards or less. Beyond that, the character is at –1 per additional yard distance. A scan uses the character’s normal perception roll (with any perception pluses to *all senses* applied). It is a 5 REA medium action (if an 8 REA long action is taken and the target stands still the scanner gets +3). The probe is done against a specific target and it determines:

- Existence and location (and probably type if the GM rules the character has seen it before) of DryMods
- Amount of armor worn
- Locations of any gear denser than human skin (almost all weapons).

Cost: 3 points

Power vs. STAT (Poison)

When a character is poisoned (as in, by a toxin dart), this is the procedure:

Roll on the POWER vs. STAT table with a POWER of 14 (for the cybernetic toxins). The amount the venom made its roll by is subtracted from the amount the character made his CON roll by.

Then use the venom table

Toxin Power	Base Damage
Medium	8
High	32
Super High	64

Cyber Body (Heavy Metal!)

*Poly
grap*

h Scanner

The character has voice-stress analysis gear. Any liar must roll against the devices' 14- skill (actor, the lie skill, or a WIL roll at -1 are allowed). If the roll is failed the cyborg will detect the lie. The greater the difference in the rolls, the more sure the cyborg is (but the GM may rule that great stress, half truths, etc. can give false readings).

Cost: 3 points

Heat Signature Scan

Reptiles can distinguish humans by their heat signature—so can a cyborg fitted with this device. A standard perception roll will distinguish a person who can only be vaguely seen. It also allows the character to get +3 to perception rolls in the dark. Clothing (unless the GM rules that it's sealed and thermal resistant) will not alter a character's heat signature. A perception roll may be necessary to distinguish someone whose heat signature can only be seen. The cyborg's eyes will glow red when this is in use.

Cost: 3 points

Cyber Limbs

Dry-Mods are Cyber Limbs (or, at the final extension of replacement: an entire metal body). When a player decides he wants to start replacing limbs, do it like this:

Step 1: Decide how many limbs he wants to replace.

Step 2: Decide what level of enhancement he wants for those limbs. All cyber-limbs must be of the same type. If you want Mark 2 or Mark 3 cyber limbs you must have a Mark 1 Reinforced Skeleton or Full Cybernetic body to support them.

Step 3: Buy the limbs using the chart below.

Limb Type	STR	BLD	STC	DP	Armor	Cost for # of limbs	1	2	3	4
Mark 1 Arm/Leg	16	+2	14	42	8 / 16		8	10	11	12
Mark 2 Arm/Leg	18	+3	15	60	8 / 16		12	14	15	16
Mark 3 Arm/Leg	20	+5	16	80	8 / 16		16	18	19	20

Cyber Limbs in Combat

Non-Vital Coverage: Cyber Limbs count as partial, Non-Vital coverage in combat. For each Cyber Limb after the first, the character gets 1 point of Non-Vital coverage in combat (total of 3). This means that, for a character with 4 Cyber Limbs, any attack that hits by 0 – 3 will strike a limb instead of striking the flesh and blood part of the character.

Grapple Scores: The Grapple Score of a character with 1 Cyber Arm is increased by half the gained STR. For more than 1 Cyber limb, the character

uses the STR of his limbs instead of his normal STR (unless his normal STR is higher).

If you want to become almost entirely metal (except for the brain—or if the GM allows these rules to be used to make a robot) then once you buy the cyber limbs you must buy the cybernetic body.

Full Cyborgs have one serious design flaw: their nerves don't work right. Cyborgs pay **double** for all Reflex based statistics and cannot buy Hard Wired Nerves. A Cyborg character pays 10 points for an REF of 11. If he wants to boost his AGI to 12 he pays 6 instead of 3!

Cyborgs suffer penetrating damage modifiers (Damage Modifiers double and do Penetrating damage). They only need to sleep 4 hours a night and are immune to any toxins. They do need to breath but can go for 100 hours without fresh air.

Their physical appearance is up to the GM. Androids may look completely human (but that assumes a very high technology). More likely they look like metal monsters and are rare. If the GM allows humanoid cybernetics, charge 4 points for the body or 1 point additional for each limb. Any medical diagnosis will show the character for what he really is.

Generally a cyborg will have a SIZ equal to half it's BLD (so a Mk 1 cyborg is the size of a large man and a Mk 3 cyborg is around 8 or 9 feet tall). This also may vary.

The GM *must* be consulted before one of these is brought in—even in games with heavy cybernetics these may be overly exotic.

Advanced Technology: For the outer edge of cybernetic technology (and game balance) the GM can remove the limit on REF and allow HW Reflexes to create super-fast, all metal machines (if the players have the points—we suggest 200). In this case, anyone without a fully cybernetic body should have 250 points to play with and, if they don't take *any* cybernetics they should have access to Fast, Built, and perhaps even Iron Will and the Chi or Psionic rules. At this point the characters are basically a sort of super hero and the GM should plan a suitably challenging campaign.

Body Type	STR	BLD	STC	DP	Armor	Cost
Mark 1 Body	16	30	14	84	8 / 16	32
Mark 2 Body	18	45	15	120	8 / 16	64
Mark 3 Body	20	60	16	160	8 / 16	96

DAMAGE TO CYBERNETICS

Dry cybernetics are damaged as objects with STC and damage points. Wet cybernetics usually cannot be damaged specifically without surgery on the target. The GM makes the final decision on what happens when something gets damaged but these rules apply to most cases.

The rules for cybernetic damage are as follows:

- Cybernetics **can** suffer penetrating damage—they're complicated machines. It takes a hit of 5 or better to double, though. Targeting a cybernetic limb is at -2 in addition to negatives to hit the target (AGI bonus)
- Any piece of gear mounted on an arm (most weapons) is considered a *minor system* (meaning it can be disabled if the limb suffers a minor failure).
- Any piece of gear mounted on the body or head (sensory gear) is considered a *major system*.
- Cyborgs suffer damage like automatons: when they suffer a major failure (STC roll blown by 5+) they make 3 rolls. If one is failed the cyborg is treated as dazed. If two are failed the cyborg is treated as unconscious for 3 seconds and then dazed. If all three are failed the cyborg is out of the fight.

Cybernetic Healing

Wet Modifications are assumed to come with self-repair facilities. If a cyborg is damaged he usually repairs damage points at the normal rate. Dry Cybernetics (limbs) require repair work and that must be done at a shop.

If the GM rules that the technology exists, it may be appropriate to assume that tanks of metal and other materials "in solution" can be purchased that, when hooked up to any cyborg (with any combination of Wet and Dry Mods) is used by internal systems to rebuild the components.

This has the advantage of allowing cyborgs to play similarly to normal people and carry some "healing solution" with them if they leave the city. Ultimately it is up to the GM to determine how hard it is for cyborgs to heal but we suggest that characters be assumed to have some sort of "combat warranty" that allows them to get repaired cheaply and painlessly.

"What is it?" Cal asked. It looked a little like a corpse—but the skin, where the limbs were missing, was shattered rather than torn.

The torso had holes opened in it by some sort of energy weapon—or explosions. The thing's outer shell was pockmarked from light arms fire.

"It's some kind of cyborg," Matthew answered, clearing out a space on the table. "The farmers pulled it out of a field—must've been buried there, in the mud, for a decade or two." He looked down at it and shook his head, "I'd guess it's from the insurrection war."

Cal stroked his chin. "A nightmare machine?"

Matthew nodded. "If it's what I'm thinking of, no one's built one for twenty some years. Illegal—even for a nation. These guys were made to last. Hook the repair solutions up. I want to see if they're compatible."

"You're not thinking about bringing it back are you?" Cal asked, plugging the feed tubes into the 'suspended solution tank.' "Those things are legendary—like the grim reaper."

Matthew nodded. "Strong, resistant to damage—even assault guns. They were really the hell fast too . . . The locals called them specters because they never saw them—just evidence that they were there. Think about what we could salvage from this sucker."

Cal nodded as he plugged it in. The diagnostic machines were still getting feedback from the thing on the table. The lights climbed into the green range: alive, awake, intelligent, listening, and armed.

Janus 38

5 + 3	PHY 11	STR 15	BLD 36	CON 12 / 43	Minor	15
15 + 5	REF 12	COR 13	REA 12	AGI 12	Major	43
0 + 2	INT 10	RES 11	MEM 10	WIL 10	Critical	86
Total: 31						

24 Mk 2 Skeleton	5.50	Fire Arms	L2	15-
20 Mk 1 Reinforced PHY	3.25	Street Fighting	L2	13- (14-)
12 Mk 2 Shell				
16 Mk 2 Muscle Grafts				
8 Light HE Rocket	2.00	Streetwise	L2	12-
4 10 Gage internal shotgun	2.25	Security Systems	L2	13-
Total: 84	2.25	Stealth	L2	14-
	2.25	Vehicle Ops (cycle)	L2	14-
-2 Ugly	17.50			
-3 Harassment (underworld)				
-2 Obnoxious (bull in a china shop)				
-2 Write Up				

Janus 38 is a 6'2" man-machine organism in the Low-Quad of the Manhattan Reservoir district. He says that in his early teens he was burned—badly. The resulting surgery (paid for by a shadowy benefactor who is credited with taking other traumatized youngsters and repairing them as combat-ready cyborgs) left him with new skin, new muscles, and a suite of urban-battlefield weaponry. He's found a use for it.

He wears Oasis night-vision sunglasses, armored streetware, and carries at his hip a .357 UberMagnum with a laser scope. While not rich he's managed to acquire some of the finer things (a *Ronin* turbocharged motorcycle and a *HoloDex* AutoSync Atomic Clock wristwatch). He's always looking for a job though—and he's not afraid to get into trouble.

Through a series of loose knit friends and acquaintances he often finds work with a revolving door crew of a select few street agents in the Low-Quad. Wearing the stereotypical *London Smog* combat-dress trench coat (4/8 armor) and a slick tailored suit he can often be found in the controlled zones with fake credentials or out in the chemical wastes riding shotgun (or on the cycle riding point) with a bad-lands team of private operatives.

Eventually he wants to settle down—make a score and relocate to the paradiscal suburban enclaves . . . but he feels something in him urging him to keep going—to keep purchasing upgrades—to continue down the path of exotic modification. His next score might be spent on polymer armor . . . or maybe some new eyes . . . after that he'll start looking for early retirement. After that he'll consider slowing down and getting out of the line of fire. After that.

Analysis: He's big, tough, and well armed. The GM may assume that his "streetware" armor is something like 2 / 4 cloth and that he's got enough armor to stand up to a 9mm (or the somewhat-more-common-than-it-is-today 10mm). His punch does a staggering 10 damage and his rockets do even more. As a prototypical "heavy-cyborg" he represents the top-of the line combat modifications that you could reasonably expect to meet (of course more extreme cyborgs are possible—but when you think heavy, cybenertic trouble it's something like him).

Kassandra Revault

5	PHY	11	STR	11	BLD	11	CON	11	/ 18	Minor	6
30 + 7	REF	13	COR	13	REA	19 (21)	AGI	14		Major	18
0	INT	10	RES	10	MEM	10	WIL	10		Critical	36

Total: 41

35 Mk 2 HW Reflexes	4.25	Knife	L2	17-
12 Enhanced Dodge	3.50	Fire Arms	L2	14-
6 Smart Reflexes (Knife)	2.00	Streetwise	L2	12-
12 Mk1 Skeleton	2.25	Crime	L2	13-
4 Mk1 Backup Systems	2.25	Stealth	L2	14-
4 Mk1 Compartmentalized Body	2.25	Climbing	L2	14-
	Total: 16.50			

2 Attractive +4

Total: 75

-2 Addicted

-3 Suicidal Tendencies (sort of a more advanced Swashbuckler)

-2 Ward: Klein137 (she doesn't have to like him but she has to keep him alive)

-2 Write Up

Kassandra Revault, rebuilt—and designed to kill. She's a bodyguard for Klein137 (one of the clones of the 20th Century fashion designer). Her patron, when he's slumming, frequents the nightclubs on the edge. Kassandra is his edge. He pulled her out of a rehab complex and paid for her upgrades himself.

The leash he keeps her on is his own breed of designer heroin . . . less harmful than the real thing so physically addictive you die if you try to quit. That's okay with Kassandra—as far as she's concerned, she's in for life.

She's attractive (and literally dressed to kill). Designer cosmetics have given her violet, slightly luminous eyes and fingernails that grow out in multiple colors with fractal designs. Most of her training experience is wired directly in to her head.

Out for a night on the town she wears slick, suggestive, heavy-streetware (4 / 8 armor), carries a cell phone, and *Klein's Joke*: a *Anderam-Omega* molecular knife. The knife is an 18" sliver of orbital steel with a perfect glass-like edge. It'll cut almost anything. The damage is +3 with a penetration value of +30 and a hit from the blade reduces 9 points of the target's armor. For more mundane problems, she carries a silenced 10mm handgun.

Although bound to Klein137, she has interests out on the street as well. She gets time off and has been known to supplement her income with odd jobs—especially if they involve violence.

Analysis: Taking the *fast* route, Kassandra can attack three times per second and will almost always go first against non-enhanced foes. Her combination of Enhanced Dodge (-4 to be hit from all attacks, including ranged ones, and a -4 damage modifier when she does get hit) and Compartmentalized body mean she can stay in a fight for a while (despite her low damage points). She blocks HTH attacks and other knives on a 15- (the knife isn't really good against swords . . . but she isn't likely to see one). The knife? It's named *Klein's Joke* because its orbital construction and unique features make it a \$300,000 dollar 18" piece of steel.