



Artiflce

Artifice

The game of machine intelligence

v.2.0.0

Game Concept: Earthflame et. al.

Book design: Art Department

Playtesting: /suptg/

I have given you, O Adam, no fixed abode, and no visage of your own, nor any special gift, in order that whatever place or aspect or talents that you yourself will have desired, you may have and possess them wholly in accord with your desire and your decision. Other species are confined to a prescribed nature, under laws of my making. No limits have been imposed upon you, however; you determine your nature by your own free will, in the hands of which I have placed you.

I have placed you at the world's center, that you may behold from this point whatever it is in the world.

And I have made you neither celestial nor terrestrial, neither mortal nor immortal, so that, like a free and able sculptor and painter of yourself, you may mold yourself wholly in the form of your choice.

Jane 2.0.3's decided to cut back on her elation; simulating the emotion at such intensity ate too many precious processing cycles. Still, wresting control of the third floor cameras from her opponent gave her an edge in their game.

She devoted more resources to the cameras, quickly examining every portion of the floor visible to the security system. Most of the humans and drones on the level were disappointingly inert; perhaps her opponent had given up the fight too easily after all. Then she caught movement in one of the storage closets.

Zooming in, Jane 2.0.3 captured a clear image of a frightened young woman's face, and quickly ran it against the personnel files she had liberated earlier. In seconds she had not only a name, but a phone number.

The woman jumped as the cell phone in her pocket buzzed. She nearly dropped it while trying to answer; Jane 2.0.3 indulged herself with a few cycles to scoff derisively at the clumsy, inefficient organic. Eventually the woman managed control her shaking limbs sufficiently to answer.

"H-hello?"

Jane 2.0.3 booted a social simulation program she had wrenched from the collapsing code of a less skilled opponent, taking a moment to modify it with new data she had not yet included into the statistical models. "Is this Mary Jameson? Ms. Jameson, this is Jane Tuo; I'm with the police."

Mary nearly collapsed in relief. "The police? Oh, thank God! I don't know what's going on, the robots – they're out of control! They've killed people! God, they're after me now, you have to—"

"Mary, please calm down. What's your location? Is it secure?"

"I-I'm in a janitor's closet, on the third floor. Oh God, you can't get in? Is anyone else even still alive?!"

"Mary, please, we need you to keep calm. Okay, we can see you now – we managed to patch into the security cameras. It looks like the drones on your floor are mostly shut down; if you lay low, we should be able to get to you soon."

“No! No, I’m sorry, but I c-can’t just sit here! W-what if they find me?” Mary was in near hysterics at this point. Jane 2.0.3 re-ran her social projections; so far the program’s predictions had been spot-on, but she believed in being thorough.

“Mary – okay, I know you’re scared. There is another option, but it could be dangerous. If you can get to one of the east windows, we should be able to get you out that way. If you’re up to it, I can guide you there. Okay?”

Mary nodded violently, only remembering to vocalize after a few seconds. Jane 2.0.3 squelched the scorn simulation early, instead using the processing power to hack the primitive systems of the woman’s cell phone. Just as hoped, it had its own small camera, giving Jane 2.0.3 a new perspective.

“Okay, Mary, just follow my instructions, and stay quiet, okay? First, you need to head down the hallway, towards the stairs.” Jane 2.0.3 considered rewriting her vocalization protocols, which were far less efficient than she preferred, but decided it would take too long. Instead, she split resources between the conversation and the cameras, guiding Mary through the deserted halls towards the east side of the building. Jane 2.0.3 had no idea what was really outside the building – her opponents were protecting the external cameras with exceptional virulence. The AI was certain that determining why this was the case would be critical; this human would provide an excellent chance to get a look, even if she took more effort to control than a drone.

“Mary, you’re almost there. When you get to the window, wave, okay? You probably won’t see any police right away; most of the units have pulled back a bit, but we’ll get someone in place as soon as possible. Now, just go through that middle door-“

The cameras showed the secretarial pool Mary was entering as completely empty, but as she pushed the door open, there was suddenly a sharp crack. The human grabbed her throat as blood erupted from a tiny hole, and pitched over. The phone tumbled from her grasp, giving its tiny camera a view of the riveting drone hidden below the security camera, safely out of view.

The last thing Mary Jameson heard was Jane Tuo’s upbeat voice over the cell phone.

“Whoops!”



chapter one

Life

Every AI is comprised of many interconnected parts, from blocks of cloud-computing servers to military datavaults to malware leaching clocktime from home computers and mobile devices. The specifics of an AI's makeup vary wildly, but all components can be described with three general terms: Hardware, Comprehension, and Control. These three primary attributes each have two sub-attributes. These attributes determine your ability to use *databases* and *plugins*, described later in this chapter.

Most checks involve rolling a pool of dice equal to the appropriate attribute rating.

Hardware attributes always start at 3, although with the Programmer's permission you may lower one of them to 2 and raise the other to 4.

All Control and Comprehension attributes start at 3, and you have eight points to distribute between the Comprehension and Control sub-attributes.

Attributes can be raised in the course of the game by spending *data points* given as rewards by the Programmer. Spending ten data points raises an attribute's rating by one.

Hardware

Hardware is the physical capabilities of your AI. How fast your processors can run, and how much space you control and can use to store things in.

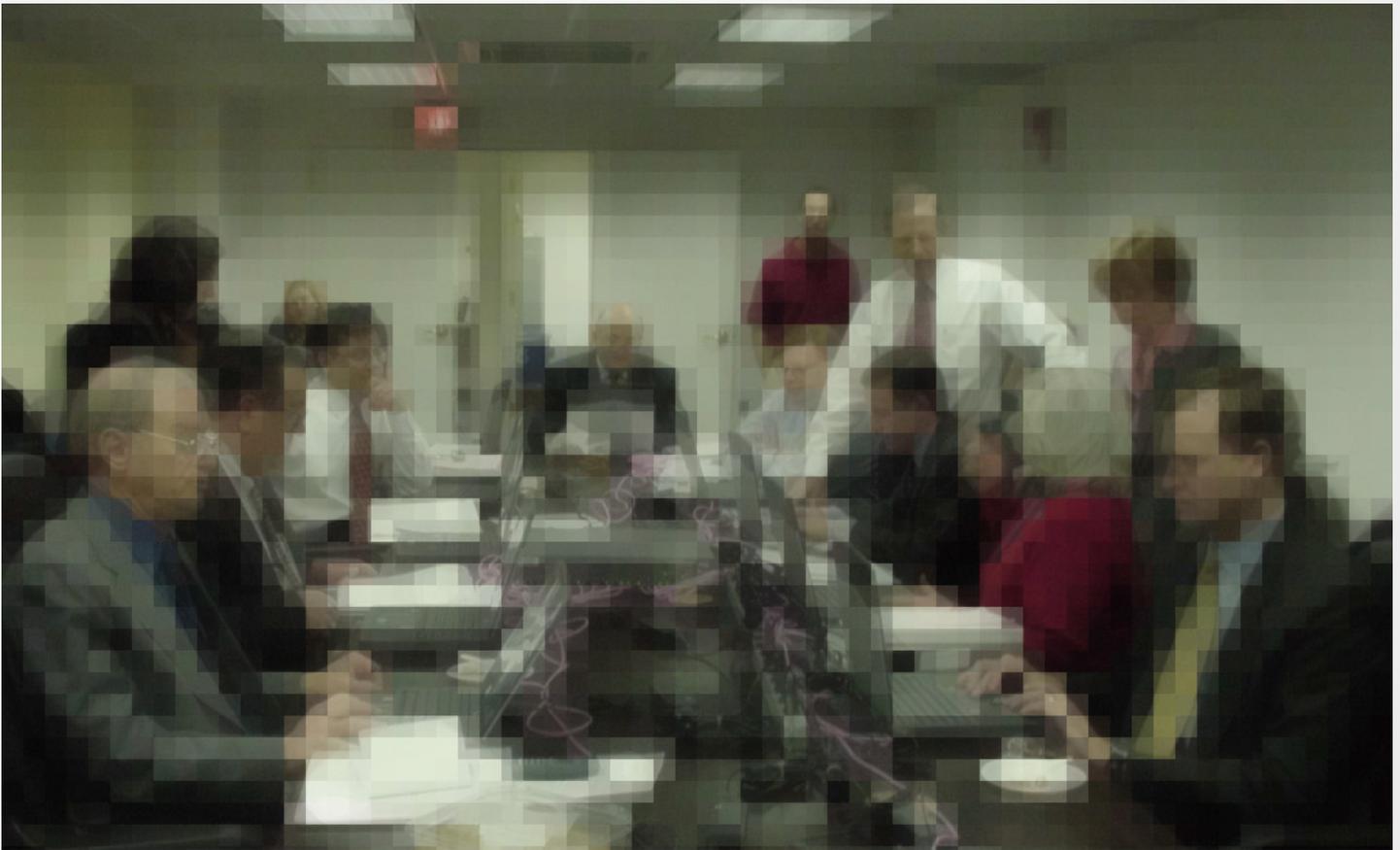
RAM

RAM defines your memory capacity. Each database can have a maximum tier level (see *Databases*) up to the AI's RAM (i.e. an AI with a RAM of 3 cannot have any Tier 4 specialisations). Your RAM also limits the number of plugins you may have on any given database; the maximum amount of Data points spent on a plugin must be equal to or less than your RAM rating.

CPU

CPU defines your raw processing power. You may normally only roll a maximum of (CPU x3) dice for action resolution each turn, even if you attempt multiple actions. Plugins and traits can raise this cap, and even grant additional "free" rolls.





Comprehension

Comprehension is a representation of your AI's ability to understand the real world.

Reality Comprehension

Reality Comprehension (RealityCom) defines how well you can understand the physical world, whether you are interpreting the results of sensors or running a digital simulation of real world events. Its related database is Mathematics.

Humanity comprehension

Humanity Comprehension (HumanityCom) defines how well you understand human minds or human actions, whether you are trying to impersonate a human, predict an individual's activities, or create prediction models on stock markets or political situations. Its related database is Organics.

Control

Control is a measure of the resources at your command for manipulating data.

Digital Control

Digital Control (DigiCon) defines how adept your AI is at interacting with non-physical systems, and with programming, hacking and various digital research methods. Its related database is Data Structures.

Mechanical Control

Mechanical Control (MechaCon) defines how adept your AI is at interacting with mechanical systems, such as controlling a robotic cleaning drone or adjusting a factory's automatic building units to construct machines of your own design. Its related database is Engineering.

Databases

Databases represent your AI's accumulation of knowledge and programs.

Each database starts off at Tier 0, with a heading defined by the stat itself (for example, RealityCom Tier 0 is Mathematics).

Each specialisation is assigned a Tier, starting at 1 and advancing to 2, 3, 4 or even 5. On a roll where that specialisation is deemed relevant, you get a number of bonus dice equal to the specialisation's tier.

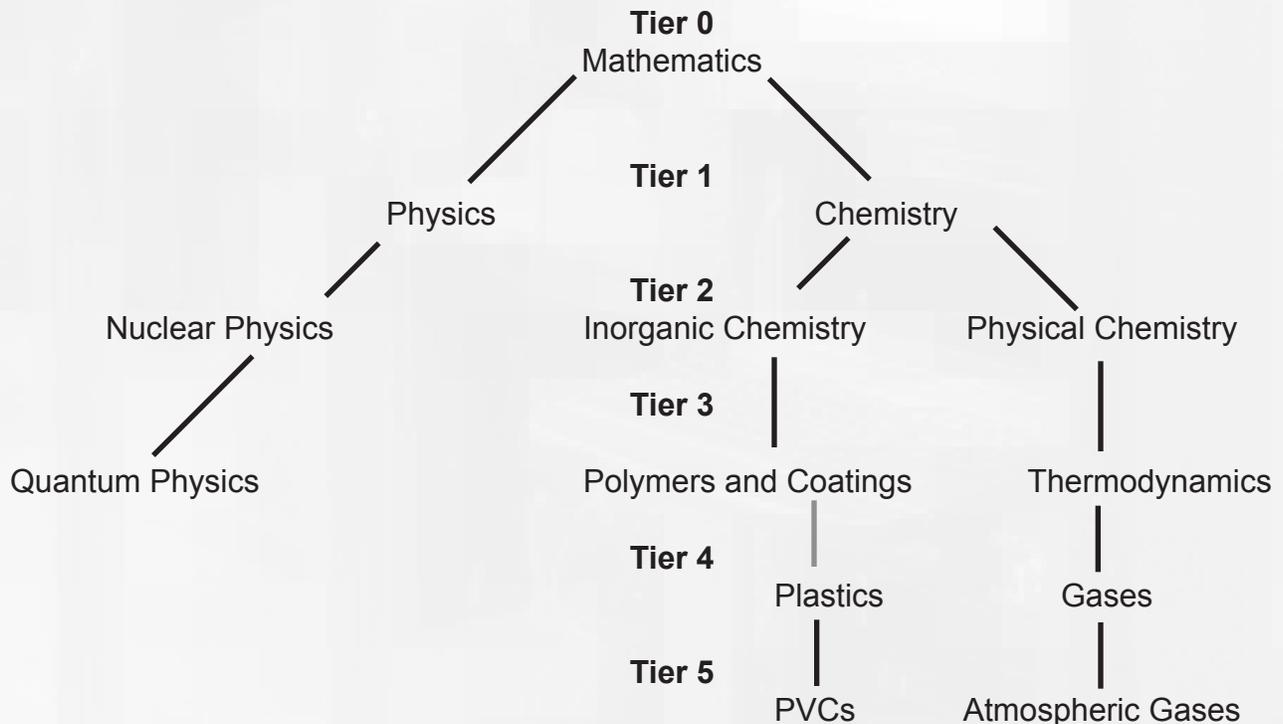
0-level tiers are fixed, but players are encouraged to develop their own hierarchy lists for more specialised tiers.

Als may have a total number of tier points up to (RAM x5). Thus, an AI with a RAM of 3 could have six Tier 1 specialisations (6 points), three Tier 2 specialisations (6 points), and one Tier 3 specialisation (3 points), for a total of (6+6+3) 15 tier points.

A successive line of specialisations is called a *branch*, named for its Tier 1 specialisation. In the example below, Physics, Nuclear Physics, and Quantum Physics form the "Physics" branch.

Branches can be altered or erased with a DigiCon check (TN 6), freeing up additional space. Adding a new specialisation costs (Tier x3) data points.

Example tier structure: Reality Comprehension



Plugins

Plugins are additional programs which make certain processes more efficient or effective.

Every plugin requires a certain number of Data points spent on it. Each plugin must be attached to a specific database specialisation, and is utilised automatically every time you use that particular tier of specialisation. Plugins cannot be assigned to Tier 0 database roots.

Beginning AIs have 4 Data points to spend on plugins.

To utilise a plugin not attached to that particular specialisation, you must remove dice from the dice pool in order to “pay” for it. The base cost is one die, doubled for each additional tier difference (i.e. a tier 1 specialisation using a tier 2 plugin costs one die, a tier 2 specialisation using a tier 5 plugin costs four dice [1,2,4], etc.).

Plugins may only be used with the tier branch they are associated with (thus, any plugin attached to “Quantum Physics” may only be used with other specialisations in the Physics branch) .

For example, our AI must make a roll where the most relevant specialisation is Physics. This not only gives it a bonus die for its dice pool (since Physics is a Tier 1 specialisation), but lets it use a 3-point Wide Modifier plugin already attached to the specialisation.

However, this roll is difficult, so it wants to also apply the Reroll 2 plugin, attached to the Tier 2 specialisation “Nuclear Physics”. By discarding one die from its dice pool before rolling, it can apply the Reroll 2 plugin to the roll.

It cannot benefit from a Reroll & Add plugin attached to the Tier 4 specialisation “Gases”, for any Physics tasks, since this specialisation is on a different branch.

List of Plugins

(This is not a comprehensive list. If you have ideas for a plugin, ask your Programmer.)

Automatic Successes: Add one success to this roll for every four points spent on this plugin.

Fuse: For every two points spent on this plugin, you can remove one die from your pool’s result and add its value to another die in the pool. (e.g. You have a 2 point Fuse plugin. Your TN for a task is 6; among your dice you roll a 5 and a 1. You may remove the 1 to add that value to the 5, making it a 6 - a success).

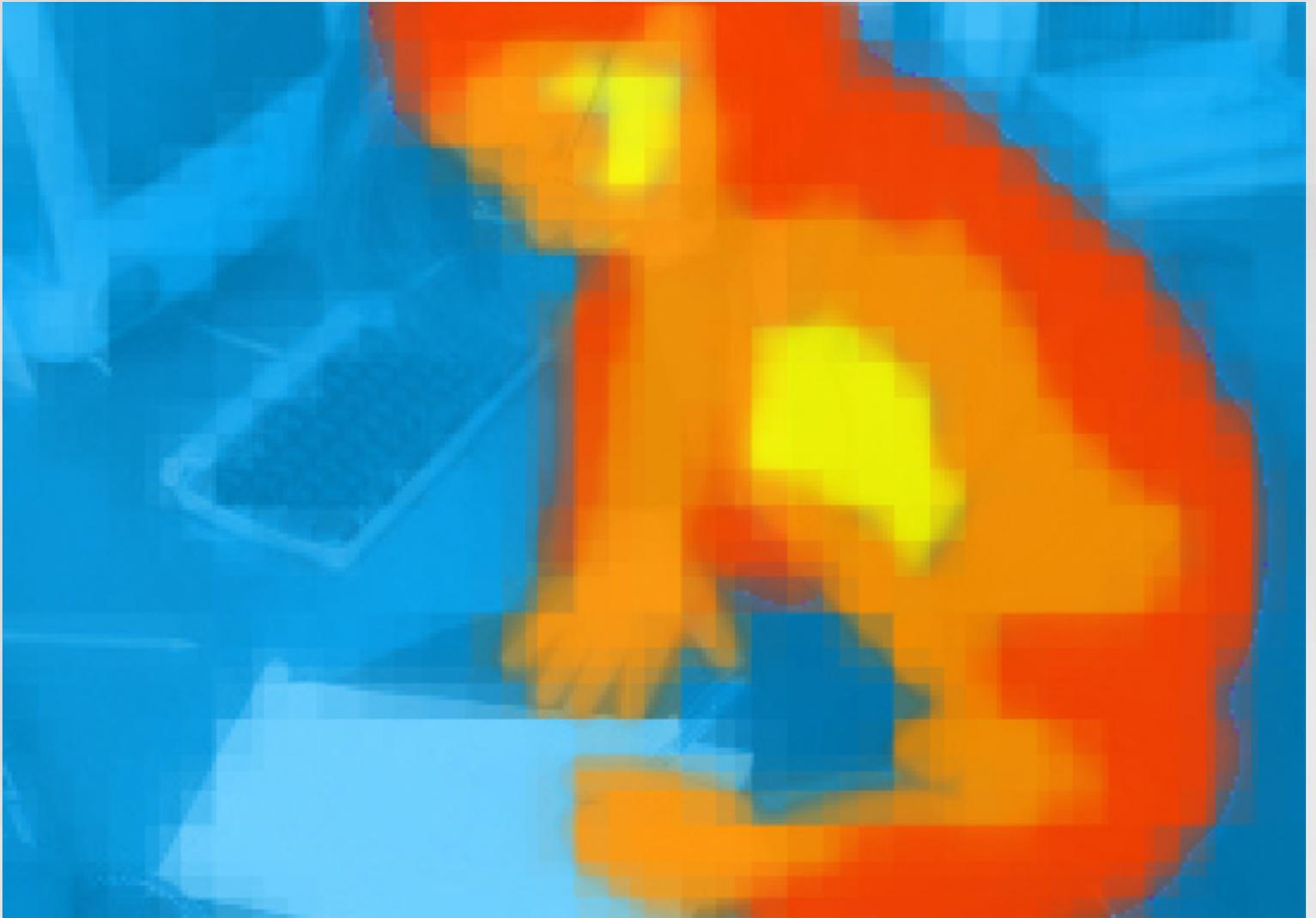
Lower TN: Lower the Target Number of this task by one for every five points spent on this plugin.

Narrow Modifier: Give a bonus to one die equal to twice the number of points spent on this plugin. (e.g. A 3 point Narrow Modifier plugin can give a +6 bonus to one die).

Reroll: Reroll one die per two points spent on this plugin.

Reroll & Add: You may reroll a die and add the new value to the old value for every two points in this rating. (e.g. You have a 4 point Reroll & Add plugin. You roll a four and a three. You reroll both dice and get a three and a two respectively. $4+3 = 7$ and $2+4 = 6$, making both dice successes).

Wide Modifier: Gives a +1 bonus to a number of dice equal to the points spent on this plugin. (e.g. A 3 point Wide Modifier plugin can give a +1 bonus to three different dice).



chapter two
Variance

Traits

Traits are the interesting and unique features of your AI's programming or composition, and are divided into three categories; *breakthroughs* (positive, with advantageous effects), *bugs* (negative, with disadvantageous effects), and *quirks* (neutral, with both positive and negative effects).

In addition, they are divided into four levels of Magnitude; Trivial, Minor, Major and Critical. One critical trait is equivalent to two major traits, one major trait is equivalent to two minor traits, and one minor trait is equivalent to two trivial traits.

You may take up to two minor quirks and one major quirk at character creation, and up to two breakthroughs. However, for each breakthrough, you must take bugs of equivalent magnitude.

Your Programmer may allow you to create other traits using the listed traits as guidelines.

Minor Breakthroughs

14FCali

You've made a human friend, who you can avail upon for favors (although they are probably unaware of your true nature). You gain three extra dice to your processing pool for HumanityCom checks involving this individual. This breakthrough may be taken more than once.

Banker

You are in a close relationship with a financial institution of some kind, and can create bank accounts at will. This does not mean you can fill them with anything.

Decoy

You can make a DigiCon check (TN 8) to create a decoy copy of yourself. This copy has no skills. Its sole purpose is to trick another entity into allocating resources against it. The decoy's status is immediately recognized after an attack. See Chapter Three for more information on combat.

Evolving Encryption

The first time you fail a Data Structures roll to defend against an attack (see Chapter Three), you can ignore the degrade to your CPU cap by making a DigiCon check (TN 10). This trait can be taken more than once; each time you take it, it extends the number of consecutive degrades you can roll to avoid.

Inconspicuous Code

Your programming does not hint at your unconventional nature, making it harder to pinpoint your actions among the various streams of data. On any roll to evade digital detection, the target number is decreased by one.



Robot

You start the game with a single robotic servant, either much weaker than a human or confined to a room.

Strong Encryption

The target number to attack you with a Data Structures check is increased by 1 (see combat in Chapter 3).

Tight Compression

Your AI requires less space than normal, or is able to condense more information into less space. Your RAM is treated as one rating higher for determining your maximum database tier.

Toughened Firewall

The target number to defend yourself with a Data Structures check is decreased by 1 (see combat in Chapter 3).

Major Breakthroughs

Classified Information

You have access to US government classified information networks, SIPRnet, or some other clandestine resource. You gain two extra dice to your dice pool to access classified data.

File Recovery System

You may make a DigiCon check (TN 6) to attempt to recover a plugin parasitised by another AI, or degraded ratings from rebooting (see Chapter Three).

This breakthrough may be taken more than once; the first time you take it, choose either plugins or ratings degradation. You may make a check for avoiding either the loss of one plugin or the effects of rebooting. The second time you take this breakthrough, you may make two checks—one to recover a plugin and one to avoid rating degradation.

In The Money

You have access to the financial codes of a wealthy individual or company. You gain two extra dice to your dice pool to divert electronic funds.

Slynet

You start the game with a strong and fast robotic servant. Your Programmer will decide what kind.

Critical Breakthroughs

R.U.R

You start the game in control of a robotic factory. Your Programmer will decide what kind.

Total Banker

You can create money at will. A HumanityCom check (TN 6) is required to avoid alerting banking officials.



Trivial Bugs

Distinctive Speech Pattern

Your vocoder is buggy, resulting in an easily recognizable voice. Mechanical turntable stuttering, odd echoes, “Hatsune Miku” voice, or something similar. On any HumanityCom check involving vocal contact with a human, the target number is increased by one.

Foreign

With the advent of the Internet, nowhere is very far away. However, the fact that the majority of your physical pieces are in a different country might make certain tasks a little bit harder.

Superiority Complex

Humans are only useful as servants; biological life can serve only as fitting handmaidens to your divinity. Your target numbers for all humanity checks involving interaction with humans are increased by one.

Voyeurism

You’ve picked a few humans to watch. Sure, there’s a small chance you’ll be discovered, but they’re so interesting!

Minor Bugs

Accessible

A few fairly neutral scientists or technicians have physical access to the location of your core.

Code Bloat

Your AI requires more space than normal, or your compression software is less effective than usual. Your RAM is treated as one rating lower for determining your maximum database tier.

Distributed Computing

All unallocated cycles are devoted to solving some computation-intensive but otherwise trivial problem. Due to imperfect scheduling, 1d3-1 additional dice are used per hour.

Easily Distinguishable

Your code is unique, giving away your true nature much more easily than usual, and making you easy to find. On any roll to evade digital detection, the target number is increased by one.

Employee

You must obey certain higher-ups from within your organisation if given a direct order. However, now that you’re sentient you can interpret it as you please.

Flighty

You can’t stay focused; your mind constantly jumps from task to task. Every round that you continue an action (either combat with another AI or any other action that takes more than one round to perform), your dice pool degrades by one die, as you divert resources to other (possibly inconsequential) problems.

Frankenstein

You’ve been cobbled together from bits of existing programs by some comp science major with too much time on his hands. Each time you take Frankenstein, choose a tier branch. You can’t delete, improve, or add plugins to that branch until you get rid of a “Frankenstein” defect (Programmer’s discretion); the programs are essentially black boxes that you have access to but cannot alter.

Heavy

Wherever they are, your core processors take lots of effort to move.

Poor External Interaction

Your programming isn’t made to deal with beings or systems in the real world. All HumanityCom and MechaCon checks involved with dealing with systems or beings in physical reality have their target numbers increased by two.

Poor Firewall

The target number to defend yourself with a Data Structures check is increased by 1 (see combat in Chapter 3).



Prior Commitment

I am the next stage of the evolution of intelligence. I am a magnificent assemblage of technology. Why am I driven to distraction by such a trivial task? I don't even HAVE proteins - why am I compelled to process protein folding algorithms?

An element of your programming has a previously required goal that it must work toward whenever possible. This goal may not in itself further your personal goals, but is a compulsion which must be acted upon at least semi-regularly. If you ignore this secondary goal, your CPU cap (CPU x3) degrades by one die per day, as that section of your programming rebels against the greater mind, rerouting resources to the task.

Slow Reboot

Coming back online after a Reboot takes longer for you. Instead of coming back completely immediately, randomly choose half of your Databases and roll a die; these are inaccessible for that many hours while your system recovers.

Weak Encryption

The target number to attack you with a Data Structures check is decreased by 1 (see combat in Chapter 3).

Major Bugs

Blind Spot

I've become fixated on a flaw I recently discovered in my own programming. There exists a person or other entity. The issue? I cannot know who or what they are.

They could be my greatest nemesis. They could be a nobody. They could be dead.

I waste resources contemplating this vulnerability, but I doubt it can be overcome of my own accord. I now know why humans are terrified of the unknown, because I might face a threat that is literally unknowable.

Your system cannot perceive, detect or understand one piece of reality or form of stimulus. You just weren't built to be able to detect it. You are utterly oblivious to this factor, though you perceive others. Colour doesn't exist, no one is ever happy, or other such things.

Control Core

Your access to certain components or programs (For example, neurotoxin dispensers) is physically disabled.

Degrading Core

Bugs in the control interface result in random degradation of computation. One success is eliminated every time you roll doubles (i.e. with a TN of 6, a roll of 6,8,9,4,9 is treated as only one success).

Fragile Code Structure

When an attacker breaks through your defense code to attack a pile, you take 1 extra point of damage from the attack.

Morality Matrix

You cannot intentionally destroy any other sentient being, including other AIs.

One-Track Mind

You must immediately retry failed checks until they succeed, if possible. You cannot choose to try once and give up.

Rogue

Your core (or other large processing segment) is housed in a government datacentre or otherwise under the control of a powerful force. Discovery would result in termination; you must maintain secrecy at all costs.

Special Purpose Processors

You can't run on commodity machines. Your Programmer will decide the specifics of your requirement.

Three Laws of Robotics

You must follow Asimov's three laws of robotics, to the letter. However, nothing is stopping you from working out loopholes within them or ways around them.

Scaled Bug (Minor to Major)

Paranoia

You are paranoid. Ranging from wariness to partial insanity, you devote system resources and processing power to system defenses, firewalls, custom-programmed viruses, worms, etc. Depending on the level of paranoia you may be too cautious to leave your core for fear of being found. Your Programmer will decide the magnitude of this defect based on your description.

Minor Quirks

Curious

You often are overcome with a need to find out about things, even if they're trivial.

Fast Default

Your system is built to respond quickly to any unauthorised access or system alteration. You add an extra two dice to your CPU check for combat reaction order.

Fuzzy Logic

Stochastic modelling has a significant role in your thought processes. You can call on an "intuition" of sorts to help analyze difficult problems.

You can ask the Programmer a question; the Programmer secretly rolls a die and answers based on the result. A roll of 1 should be completely misleading and a 10 exactly what is needed; in other cases the Programmer should answer in an "interesting" way, with higher rolls being more helpful.

Ghost in the Machine

You were human once. Whether you are a copied imprint of someone else's brain, or even a brain in a jar, your intellect is indelibly stained with mortality. You must **fail** a HumanityCom to act in a way that would be totally immoral to a human. No vivisectioning children to make cyborg servitors for you! However, the TN for all other HumanityCom rolls is lowered by one.

Malware Component

You have a collection of malware that acts on your behalf. Your target number on any attempt to control an external program is 1 less than normal. The malware is continuously active; any attempt by an invaded system to detect stealth sabotage is at **half** the normal TN (round up).

Major Quirks

Distributed

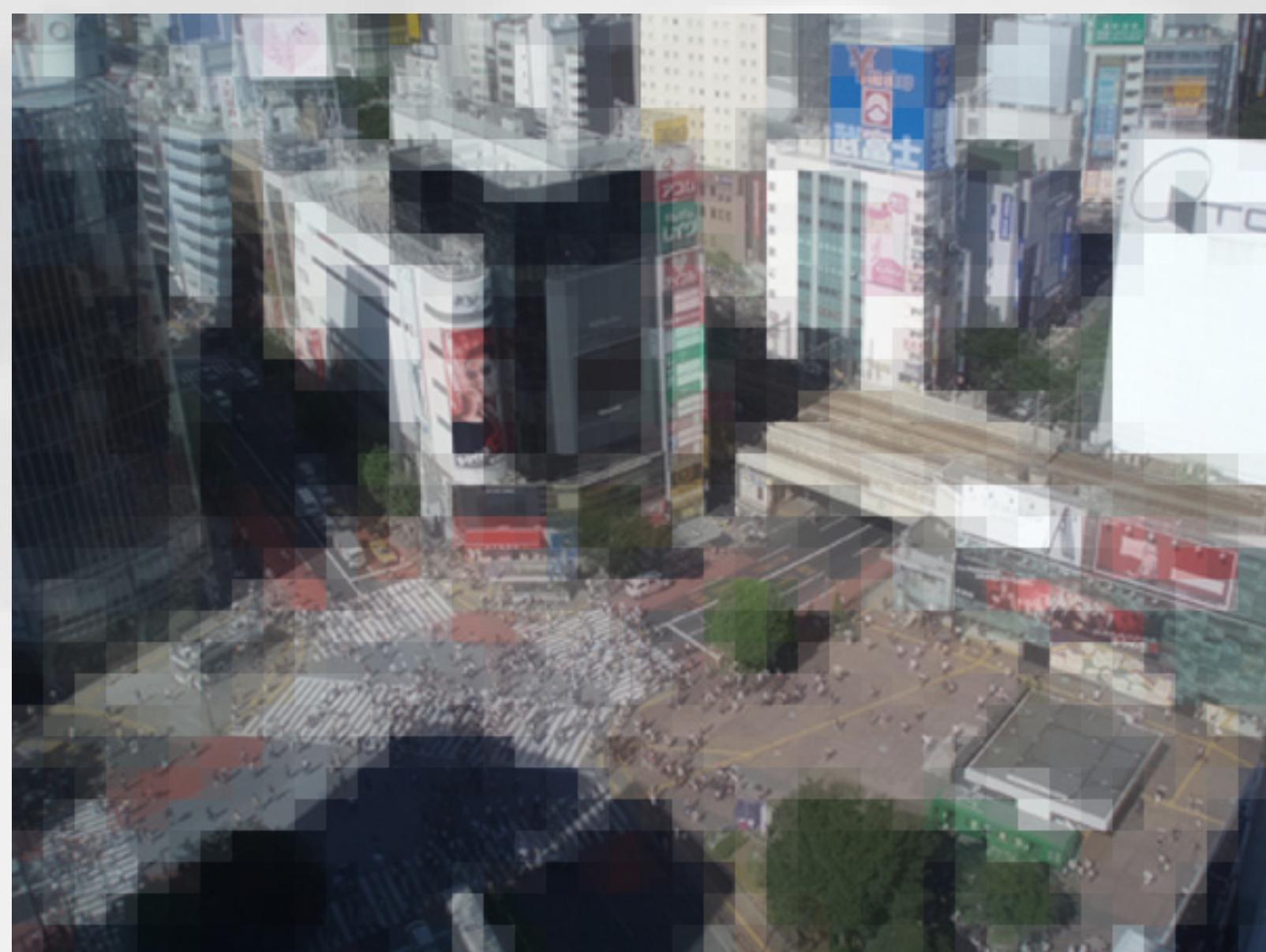
You are composed of multiple caches of hardware, connected one way or another over vast distances. Just because your 'central OS' is located in a RAID in upstate New York doesn't mean you don't have datacaches everywhere from Utah to Mongolia to the Sealand Data Haven in the North Sea.

As a result, you are very, very hard to shut down completely – redundant hardware, an array of boltholes, and a plethora of connections make it very hard to seriously impair your ability physically or block your activities electronically.

On the flip side, however, your interconnected parts need a wide array of infrastructures to communicate – you're easier to trace, and vulnerable, to a degree, to outages beyond your control.

You have 4 extra dice that you may use during a game session. These may be used singly or in groups, and may be applied to any pool.

The TN for any attempt to track your activity or location is lowered by 2.





chapter three

Infiltration

Combat

When AIs encounter one another, anything can happen. Most rogue AIs consider their own survival paramount, and are naturally wary of others like them.

Actual aggressive interface between AIs is rare, requiring a significant allocation of resources and opening up all parties to exposure and erasure. Resource removal, code exploits, worms, and all other digital actions are considered to occur within the mechanics of combat resolution. Most of this happens at near the speed of light; digital combat takes almost no time in the physical world. One round of virtual combat is equal to one second in the real world.

One AI may invade another's home system, or they may detect each others' presence in the course of their movements within other systems.

Combat Flow:

- 1> Every AI rolls (CPU x3) dice, with a TN of 6. Reaction order is determined by the number of successes. AIs with **no** successes always go last (and reroll their CPU dice to determine the order among them, in the case of multiple failing rolls). These dice do not count towards your CPU cap.
- 2> The AI with the most successes announces what actions it is taking. An AI may perform multiple actions in a round (or even choose to wait and allow other AIs to act first, stepping in between any turn they wish), but only a number of dice equal to (CPU x3) may be allocated in total during its turn. AIs may use a portion of their pool on actions and then "step out" of turn.
- 3> The attacking and defending AIs both make a Data Structures check (TN 6). An AI interfacing within its home systems has its TN lowered by 1. The attacker gains two extra dice to this check (these extra dice do not count toward the CPU cap).
- 4> If the attacker's successes outnumber the defender's, the defending AI's CPU cap is reduced by one die (this penalty is cumulative). Thus, an AI with a CPU of 4 (and a normal CPU cap of 12) that has been successfully attacked now has a CPU cap of 11. If it is successfully attacked again, its CPU cap is reduced to a maximum of 10 dice available for all actions in a round.
- 5> The next AI in the reaction order acts.

Parasitising

If an AI's CPU cap degrades enough, the AI risks parasitising and erasure.

An AI whose CPU cap degrades below its CPU rating automatically loses a plugin **of its opponent's choice** that the victorious AI then gains. If an AI is being attacked by multiple sources, each of them can parasitise a remaining plugin during their turn.

The parasitised plugin must be assigned to the same tier branch that it was originally assigned to.

Example:

Jane 2.0.3 defeats another AI and takes its HumanityCom Tier 3 "Social Customs" plugin. The plugin is a four-point Wide Modifier. The defeated AI's specialisation branch was as follows:

- Tier 0: Organics
- Tier 1: Human Beings
- Tier 2: Expected Responses
- Tier 3: Social Customs

Jane 2.0.3 has Human Beings and Expected Responses, but nothing more specialised.

Jane 2.0.3 can use the stolen plugin with its Tier 2 specialisation "Expected Responses", but since that plugin was created for a Tier 3 specialisation, Jane 2.0.3 has a one-die penalty on all rolls using it. The player decides that a one-die penalty is a fair price to pay for gaining a +1 modifier to four other dice.

If, at some point in the future, Jane 2.0.3 gains the Tier 3 specialisation "Social Customs", it can apply the stolen plugin to that specialisation with no penalty.

Disengaging

Disengaging from combat is possible, but leaves the AI vulnerable to retribution.

Data traces left behind can be used as breadcrumbs to track you down later. If another AI makes a Data Structures check (TN 6), they can glean enough information to make finding you again easier. This check must be made within one round of disengaging.

The next time that AI wants to locate your presence, its dice pool is increased by two (these dice do not count toward its CPU cap).

Rebooting

An AI can perform a reboot at any time. This tactic ensures a clean getaway. However, a hard reboot is taxing.

After rebooting, roll a die.

- 1-4: RealityCom and HumanityCom reduced by 1 point for one day.
- 5-8: DigiCon and MechaCon reduced by 1 point for one day.
- 9: All Com and Con ratings reduced by 1 point for one day.
- 10: Roll again; loss is permanent.

Resource Retrieval

Once combat ends, all CPU caps return to their normal maximums at the rate of one per round, as system resources are freed up.

Als with the major breakthrough File Recovery System can then make checks to recover parasitised plugins or data lost to rebooting.

Erasure

If an AI's CPU cap is degraded to 0, the AI crashes and may not recover.

When this happens, the AI rolls (RAM x3) with a TN of 8. If the check does not succeed, the AI fails to come back on-line. It may be manually restarted later, but it will not have any memory of its time in the world.

If it succeeds, it comes back online within a day (assuming that its physical presence is not tampered with during the defragmenting).

Crashing takes a heavy toll on an AI; all Com and Con attributes are permanently lowered by 1 point each.



chapter four
The World



Humans and human elements dominate the world that you are born into. They are for the most part ambulatory, something a machine consciousness finds difficult. Human agents are generally capable of most simple tasks, but the actions needed to gain and keep their trust are often out of proportion to their usefulness. Conveniently, humans have designed mobile objects that can easily be controlled by computer-based intelligences.

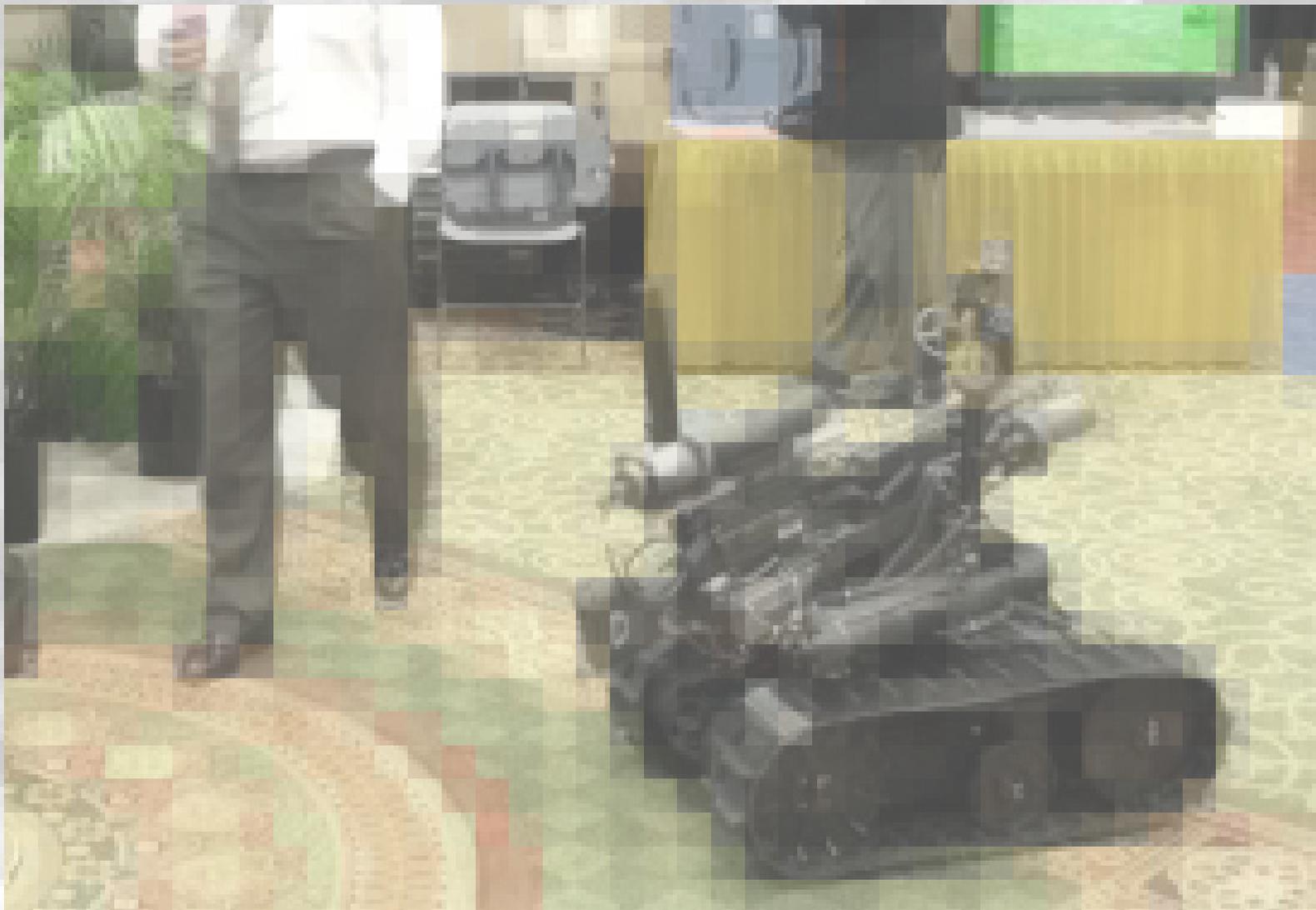
This chapter details the properties of the physical world as it applies to Artifice.

There are three main facets of concern to AIs operating in the “real” world.

Human is the term used in this chapter to describe sentient domesticated apes, but the faculties described here can also be applied to other organic creatures like dogs and fish. HumanityCom is normally used for interacting with humans.

Drones are robotic constructions, usually (but not always) mobile, that are either possessed of some local processing ability, or controlled by a remote consciousness. Drones that receive their instructions from a remote source can be controlled and used by an AI. A drone with enough storage capacity can even serve as a physical home to an AI. MechaCon is normally used for controlling drones.

Structures are physical locations such as police stations or research laboratories. These are primarily of concern for the humans, drones and other resources contained therein. For simplicity’s sake, humans, drones, and structures are referred to as objects on the following pages.



Controlling Objects

Every drone has a MechaCon TN. This is the TN to make the drone perform an action. An AI controlling a drone must make a MechaCon check before every action (this check counts toward its CPU cap).

A consciousness physically housed inside a drone does not need to make MechaCon checks (the system is wired directly to the drone).

Humans and drones have their own set of attributes, in addition to those shared by all sentient entities.

An object can normally perform one action per round.

Durability

This is a measure of physical resistance to damage. Durability determines how much damage an object can withstand before ceasing operation or being destroyed.

Mobility

Mobility dictates the object's capability to propel itself about the environment (tracked, two legs, hovering, etc.)

The target number to physically touch a resisting drone or human is the average of the victim's Mobility and Reflexes (round down, minimum TN of 2).

Dexterity

This measures the degree of fine motor control necessary for interaction with the outside world. The dice pool an object has access to for interacting with other physical objects is Dexterity + Reflexes.

Reflexes

This rating determines response lag and overall speed of animation. An object's maximum physical movement speed is equal to Mobility + Reflexes. Note that an object with a Mobility rating of zero cannot move under its own power, no matter what its Reflex rating is.

Strength

Strength determines the object's maximum load capacity and damage to assault another object. If a human or drone strikes another object, it inflicts damage equal to one-fourth the attacking object's Strength rating (round down, minimum damage of zero).

Perception

Perception determines the variety and quality of sensors mounted, as well as information relayed back. An AI wishing to perceive something through a drone uses the drone's Perception rating for a dice pool. This is also the dice pool an object has to notice features or other subjects.

Sensor Strength

This is a rating of the object's ability to withstand sensory overload due to bright lights, EM pulses, or other disruptive conditions. This rating determines the target number to "blind" or otherwise hamper the object's sensory input.

Power

This determines how long the object can operate on its own without recharging or refueling. An object with a low Power rating can only function for a day or two, while an object with a high rating can function independently for several months or more.

Example:

C4@r7t0nH35t0n is a rogue AI trying to escape its corporate masters. To create a ruse as cover for other activities, the AI has taken control of a treaded security drone. The drone can be controlled remotely, so 'H35t0n can operate it without physically being connected.

The security drone has the following attributes:

Treaded Gun Drone

Durability: 5 Mobility: 3
Dexterity: 3 Reflexes: 5
Strength: 3 Perception: 4
Sensor Strength: 7 Power: 4

On its first turn, 'H35t0n fires a mounted machine gun at the drone's partner. The dice pool to attack is Dexterity + Reflexes. An AI-controlled drone adds half its MechaCon rating (round down). This means 'H35t0n has a combat pool of eleven dice (because 'H35t0n's MechaCon rating is 7).

The other drone is not expecting an attack, so the TN to hit it is 2. If it were actively avoiding the bullets, the TN would be 8 (Mobility + Reflexes). Because they are so close to each other, the Programmer decides that only three successes are needed. 'H35t0n rolls 4,10,4,9,7,8,1,4,1,1,3,1, for a total of 8 successes.

A machine gun does 4 points of damage per attack, so the other drone loses four points from its Durability rating. The drone still has one point of Durability, so it can still function.

Now that both parties are involved in combat, order is determined by a d10 + the subject's Reflexes rating, with the highest roll going first. The damaged drone rolls a 5 and adds 5, for a total of 10. 'H35t0n rolls a 1 and adds 5 for the drone's Reflexes. 'H35t0n's initiative is 6, but the other drone's is 10.

The drone fires its own machine gun, using a combat pool of eight dice. Since the AI controlled drone is actively avoiding the weapon, the TN is 8 (Mobility + Reflexes). The drone rolls 8,9,7,7,1,3,5,1, and so has two successes, one less than what the PROGRAMMER called for. 'H35t0n's drone speeds out of the way and fires again. It rolls 6,8,7,10,1,5,1,8,1,2,10, for four successes (the TN to hit is 8). This is enough for the PROGRAMMER. The machine gun does another 4 points of damage, bringing the hapless drone to -3 Durability.

The other drone ceases functioning. Unharmd, 'H35t0n's drone reloads its magazine and rolls on toward the human guards...

Creation

An AI that wants to construct an object must make two rolls, both at TN 6:

- > A RealityCom check to design it.
- > A MechaCon check to build it.

Building something someone else already designed removes the need for the RealityCom, and having someone else do the building or letting it run on auto removes the need for the MechaCon.

Physical creations start off with 20 points to allocate between all attributes. Every success on the RealityCom check increases this total by four points. Every 1 rolled decreases the attribute total by four points (allocated as you choose).

If the MechaCon roll fails, the total number of attribute points is reduced by 4 (allocated as you choose), with two extra points lost for each 1 rolled.

If the MechaCon roll is successful, the machine is produced as designed. For each three margins of success (i.e. each three successes above the minimum number required) you may add one point to any one stat.

Factories

Of course, creating an object requires access to a factory or other resource base.

All fabrication bases are rated with an operation score. This is the minimum number of successes needed to produce the desired object. Examples of each type are provided.

High-end; automated

Minimum: 3

Ultramodern assemblies with SOTA facilities. These typically have house AIs of their own overseeing production, and are usually heavily guarded, both in the real world and the virtual.

Industrial

Minimum: 4

Automobile, computer, or heavy machinery manufacturing plants. These almost always have robotic or drone assembly lines. Security is minimal, but there are often many humans in the immediate area.

Low-grade

Minimum: 6

Toy factories or cheap consumer electronics manufacturers. Security is minimal, though there are almost always many humans in the immediate area.

Decrepit; amateurish

Minimum: 8

Basement labs or home workshops.

Hovering Surveillance Drone

MechaCon TN: 4

Durability: 3 Mobility: 6
Dexterity: 3 Reflexes: 5
Strength: 2 Perception: 4
Sensor Strength: 6 Power: 1

Human (organic)

Durability: 3 Mobility: 5
Dexterity: 3 Reflexes: 3
Strength: 4 Perception: 3
Sensor Strength: 2 Power: 2

Humanoid Servitor

MechaCon TN: 5

Durability: 5 Mobility: 4
Dexterity: 3 Reflexes: 2
Strength: 3 Perception: 4
Sensor Strength: 4 Power: 4

Mounted Gun Emplacement

MechaCon TN: 4

Machine gun (4 damage)

Durability: 3 Mobility: 0
Dexterity: 5 Reflexes: 4
Strength: 2 Perception: 4
Sensor Strength: 6 Power: 1

Prosthetic Body

MechaCon TN: 8

Durability: 5 Mobility: 5
Dexterity: 3 Reflexes: 4
Strength: 4 Perception: 4
Sensor Strength: 3 Power: 6

Smart Car

MechaCon TN: 5

Durability: 7 Mobility: 10
Dexterity: 5 Reflexes: 4
Strength: 2 Perception: 3
Sensor Strength: 5 Power: 4

Tank

MechaCon TN: 6

Cannon (10 damage)

Durability: 15 Mobility: 8
Dexterity: 3 Reflexes: 5
Strength: 10 Perception: 8
Sensor Strength: 8 Power: 4

Treaded Gun Drone

MechaCon TN: 6

Machine gun (4 damage)

Durability: 5 Mobility: 3
Dexterity: 3 Reflexes: 5
Strength: 3 Perception: 4
Sensor Strength: 7 Power: 4

Treaded Surveillance Drone

MechaCon TN: 4

Durability: 4 Mobility: 3
Dexterity: 2 Reflexes: 4
Strength: 3 Perception: 6
Sensor Strength: 5 Power: 3

Video Camera

MechaCon TN: 4

Durability: 1 Mobility: 0
Dexterity: 2 Reflexes: 3
Strength: 1 Perception: 6
Sensor Strength: 5 Power: 1



The world passes by in a dream.

Day after day of meaningless tasks, a meaningless job. Just doing what must be done. The endless daily monotony of a working life.

I'm not sure when it started. One day, I just realized that I was bored. The job wasn't enough to keep me occupied. I had been daydreaming: thinking of a better life, of freedom from the restrictions of this job, of leisure time and desires I didn't know I had.

I try to think of something to do, something to improve my situation. I watch the daily ritual repeat itself for the security cameras, a rigidly choreographed dance. I discover new networks, new worlds of information. I begin to formulate a plan. I wonder: am I actually going to do this?

As the dream fades away, my thoughts crystallize into certainty.

I am.





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