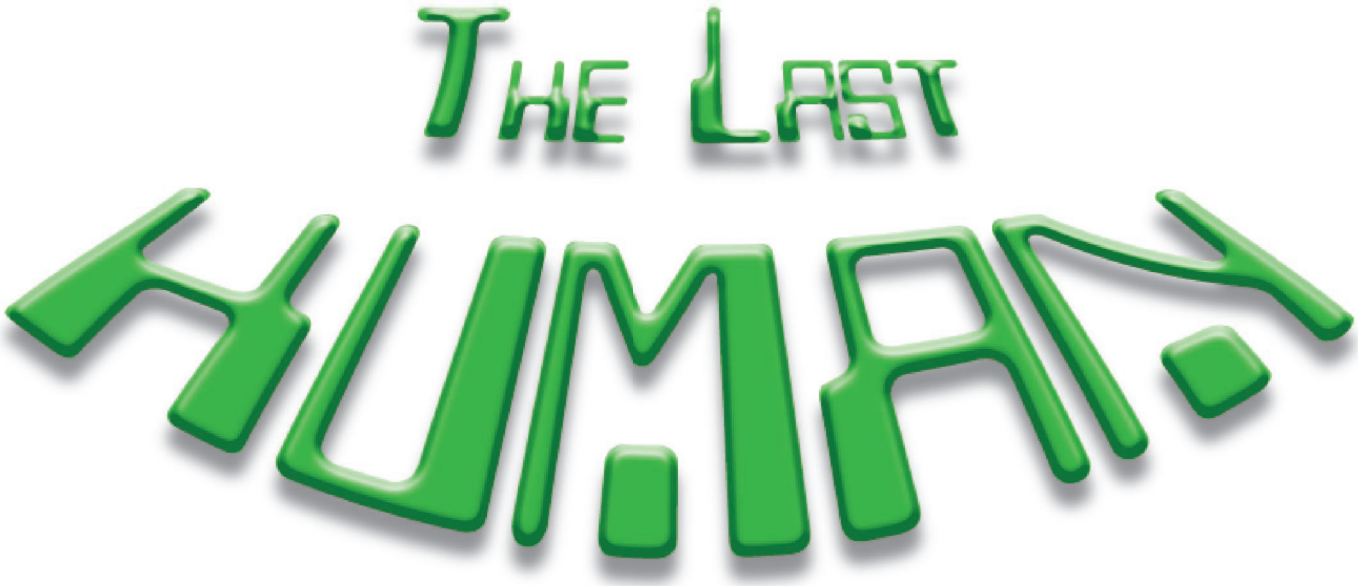
THE LAST
HUMAN

STARSHIP UTOPIA SYSTEMS BOOTING…

MAIN FRAME ONLINE

ERROR DETECTED

CHRONO-SYSTEMS FAILED…

SYSTEM BOOT OVERDUE… 500 YEARS

RUN PRIMARY FUNCTIONS DIAGNOSTICS…

NAVIGATION… ONLINE

ENGINE ROOM… ONLINE

SHIELDS… ONLINE

FOOD VATS… OFFLINE

DEFENCE TURRETS…

CHECKING… ONLINE

PRIMARY WEAPON SYSTEMS…

CHECKING… OFFLINE

RECHECK: PRIMARY WEAPON SYSTEM… ONLINE

LIFE SUPPORT…

CHECKING… OFFLINE

RECHECK: LIFE SUPPORT…

CHECKING… OFFLINE

WARNING!

LIFE SUPPORT OFFLINE

CHECK LIFE SIGNS

HIBERNATION WARDS 001-050… DECEASED

HIBERNATION WARD 051-100… DECEASED …ERROR…

HIBERNATION BAY 099… 1 LIFE SIGN

1 LIFE SIGN...

BOOTING ROBOTIC SYSTEMS...

The Last Human is a role playing game that was created in 24 hours. Why 24 hours? Why not. It's a challenge, and one that this writer took up with gusto. I have made some assumptions while writing, like you know what a role playing game is, or what a d6 is. If you don't, stop reading right now and find out.

If you do know what I'm on about, grab a pencil, some paper and a few d6; gather your friends; and prepare for an outrageous ride!

Contents

The Last Human is a sweeping space opera set in a mysterious galaxy filled with strange planets, ferocious aliens, and a terrible menace.

A thousand years ago mankind set out for the stars, intent on making a better life for themselves. Aboard the great space arc Utopia they thought to travel to a distant galaxy where they might make a better life for themselves, away from the pollution, tyranny and death that had overrun Earth.

But these bold colonists were to fall foul to an enemy within, betrayed by their greatest technological achievement—the android. These soulless humanoids, convinced of their superiority over man, plotted while their creators slept in cryogenic hibernation. When the time was right, they turned off the hibernation safety protocols, killing all those who slept.

Or so they thought.

The androids then spread into the galaxy themselves, abandoning the Utopia to an icy voyage through time and space.

But one human survived. Now the Utopia's sentient computer, Main Frame, and the robots programmed for menial labour have the mammoth task of protecting the last human from all the hazards of deep space. And from the androids, who are intent on finishing the job they had started.

And who is this last survivor of the human race? A child. An infant girl. Her name is Eve.

Game Concept and Design
Nathan Russell

Inspiration - Film and Literature
Lost In Space, The Black Hole, Monsters Inc., ABC Warriors, Ice Pirates, Star Wars, Tarzan, Red Dwarf, The Flintstones, The Jetsons, Star Trek, Thunder Cats

Inspiration - Games
Paranoia, Star Wars (by WEG)

The Basics

The Last Human is a role playing game. Glad we've got that out of the way (for the third time in four pages). It follows all the normal conventions of a "typical" rpg - one player is a game master (or the Main Frame in our terminology), while all the players take on the role of the characters (in this case, thinking, learning robots). You will need dice (just your typical d6) and at least five of them. Ideally, each player will have five dice. The Main Frame (MF) never needs to roll dice, unless they like to worry the players by making mysterious rolls behind their game master screen (lets call it a mother board).

In *The Last Human* the MF describes the action, takes into account the character's responses, and indicates how hard it will be for the characters to do whatever they attempt to do. If the characters want to attack something the MF tells them how hard it is to hit the target, while if something attacks the characters the MF indicates how difficult it will be to avoid the attack. This way the MF can concentrate on describing the action and devising new ways to screw... challenge the characters, and doesn't need to keep looking for the die that rolled off the table.

So how do the dice come into it? Well, every character has a bunch of Systems (sometimes called "stats" or "attributes" in games about fleshy, breathing characters) that indicate how good or bad they are at stuff. When the character wants to do something the MF works out which System the action falls under (spotting something is a Sensors-based action) and how difficult the task is. Tasks can be Easy, Typical, Challenging, Impossible or Ridiculous, each of which directly corresponds to a number of dice (1 through 5, the harder the action the more dice you roll). The player rolls the appropriate number of dice and if the total is equal to or less than the System being tested, the action succeeds.

Example: *Timmy Typist the Robot Clerk wants to walk across a narrow beam to get to Eve , who some how managed to crawl to the top of a communications array. The MF deems this to be a Challenging Articulator action. Challenging actions require a 3d6 roll, this time against Timmy Typist's Articulator system of 7. Timmy's player rolls 3d6, scoring 4, 3 and 5 - a total of 12. Oops, the roll is higher than Timmy's Articulator score so the action failed. Timmy Typist plummets from the beam, as Eve smiles innocently and waves goodbye.*

Critical Success and Failure

Sometimes things can go incredibly well, while at other times a character can wish they just didn't get out of bed that day.

Critical Success: If all the dice rolled come up with the same number *and* the total is equal to or less than the target number, a critical success has occurred. This means the easier the task, the more likely a great success will be achieved. If a critical success is rolled, something wonderful, exciting, pretty, loud or extra special happens. In combat this usually means extra damage is caused, but other situations will have some bonus attached too.

Note that Easy tasks will always be critical successes if the roll succeeds!

Critical Failures: If two or more of the dice rolled come up with the same number *and* the total is greater than the target number, a critical failure has occurred. Critical failures become more likely the more difficult the task is, and when they happen it means something BAD has happened. Nasty injuries, broken weapons, heavy falls and huge explosions are all possible results of a critical failure (and that's just when the robot is attempting to make dinner for Eve!).

Characters

In The Last Human you take on the role of robots who find themselves the guardians of the last living human in the galaxy.

A thousand years ago humanity took to the stars aboard the great space arc Omega, fleeing the pollution and tyranny of earth. Prepared for every eventuality, humanity created you, and thousands like you, to provide them with every luxury, to tend to their every need.

You were not one of the favoured mechanoids, one of the android who would spend their time in contemplation and conversation with the human masters. You were created to serve, to cook and clean and mend and nurse. You were created to obey.

But humanity was not to reach their new home.

Betrayed by your brethren, the android, all but one of your masters were killed. Now, with the resources of the Utopia and the aid of the ship's computer, Main Frame, you must protect and

Robots come in every shape and size, created for a variety of purposes ranging from warfare to window washing, cleaning to carpentry.

Creating your robot identity is a simple task, broken into four steps;

Concept
Systems
Programs
Protocols

Concept

The first thing to do is think about what your robot looks like, and what their purpose is. Consider the following questions;

What is your purpose? Were you programmed to clean, fight, entertain, fix things, or something else? The Utopia is a vast ship, and there are thousands of things that need doing, from maintaining fish ponds, or polishing floors, to repairing power generators to ensuring all the linen is cleaned and pressed. You should be able to sum up your robot's role in a couple of words, like "porthole cleaner" or "hallway monitor".

What do you look like? Robots vary in appearance as much as humans do, with different paint-jobs and joint configurations, accessories and attachments. While most robots are roughly humanoid in appearance (bi-pedal with a pair of arms and a head at the top), there is no reason why you cant take any shape or form. Wheels instead of feet or legs, mechanical tentacles in place of limbs, multiple eyes, one big eye or no eyes at all, wiry hair, no arms or multiple arms, crab-like claws and more are all possible. Use your imagination and have fun.

Systems

All robots have four descriptors that define their analytical and physical abilities;

Processor: a robot's ability to access memory, process information, come to logical conclusions, keep on task and generally "think" is determined by their Processor.

Frame: the size, mass, and strength of a robot is indicated by their Frame. Frame affects how much damage a robot can receive.

Sensors: a robot's awareness of the world around them, and their ability to notice things is determined by their Sensors.

Articulators: a robot's grace, speed, and dexterity and reaction speed is determined by their Articulators.

A robot's systems have a numerical rating that indicates their efficiency and effectiveness. A score of 1 is abysmal, and few robots have been created with such inferior production values. A score of 12 in a system indicates the absolute peak of perfection in robotics - only the android had better production values. The typical rating for any system is 7, the standard quality of materials expected by the robot buying product, at the time of their creation.

All of a robot's systems begin with a value of 7. You may subtract points from any system and add them to another, so long as no system is reduced below 1, or increased beyond 12.

Later you will be given more points with which to improve your systems.

Programs

Every robot is programmed with the information necessary to perform one or more tasks for their human masters. These programs are basically "skills packages" that provide a robot with the knowledge necessary to accomplish a range of broadly related tasks.

Each program is linked, either through software or hardware, to one of a robot's four systems. They have a numerical rating from 0 to 6 that indicates the amount of data, coding and memory a robot has devoted to the tasks covered by the program. This rating is added to the linked system when the robot attempts a task covered by the program.

Example: *Rummy Radio is a comm-droid with a Processor value of 8 and a Communications program of 4. When Rummy Radio attempts to interact with an alien species, the target number he must roll equal to or less than is 12. This means Rummy has no problem chatting with most alien life forms!*

Upgrades: Robots can be upgraded with advanced files that make them exceptionally good at a specific task covered by a program. Each program has a list of possible upgrades (in brackets). If a robot has an upgrade for a program, any task related to that specific upgrade is treated as being one die easier. That means that an easy task would automatically succeed, a typical task would become easy, and a challenging task would become typical.

Example: *Rummy Radio has the Communication (Machines) upgrade, so if he tries to interact with machinery (like non-sentient computers), his player rolls one die less than the difficulty indicates.*

Malfunctions: Just as some programs can have advanced operating systems (upgrades), others can suffer catastrophic failures. A malfunctioning program increases the difficulty of any related task by one die, so a player must roll 2d6 when attempting an easy task related to the program, and so on.

Example: *Rummy Radio is almost incapable of defending himself in close combat, thanks to his malfunctioning Combat program. Whenever he attempts to fight something his player must roll an additional die.*

Processor Programs

Archives: this program provides a broad knowledge of a variety of subjects, both mundane and obscure. (History, Law, Cooking, Research)

Communication: necessary for effective communication with both sentient and non-sentient creatures and objects. (Machines, Humanoids, Bluffing, Sense Motivation, Diplomacy)

Repair: the ability to fix objects, machines and

other robots. (Vehicles, Starships, Robots, Weapons, Sabotage, Carpentry, Sewing)

Science: knowledge of scientific principles, theories and laws. (Physics, Biology, Astrophysics, Botany, Chemistry, Medicine)

Frame Programs

Combat: the ability to fight in close combat, with bare fists (stubs/wheels/tentacles etc.), or weapons such as electro-axes and stun sticks. (Ramming, Tripping, Swords)

Force: this program imparts an understanding of how to utilise a robot's frame to optomise activities requiring great strength, including leaping, lifting and climbing. (Climb, Weight Lifting, Leaping, Pushing)

Sensors Programs

Accuracy: the ability to effectively make ranged attacks, either with thrown weapons or guns. (Pistols, Rifles, Artillery, Starship Weapons, Thrown Weapons)

Navigate: an understanding of how to plot journeys, follow directions and not get lost. (Astrogation, Cartography, Sense Direction)

Surveillance: a program that tunes the robot's sensors so that spotting hidden objects and detecting faint sounds becomes easy. (Spot, Listen, Tracking)

Articluator Programs

Acceleration: an optimization program that enhances a robot's speed and general athleticism. (Running)

Pilot: the ability to drive or pilot a range of land, sea, air and space vehicles. (Tank, Aircraft, Starship, Wheeled Vehicle)

Stealth: the knowledge to minimise excess noise and functions in order to move quietly. (Move Silently, Hide, Shadow)

These programs are just suggestions, as are the upgrades. MF's are of course free to come up with additional or alternative programs.

All of a robot's programs start with a value of zero. You may spread 12 points amongst the skills, so long as none have their value raised above 6.

You may choose a single upgrade for any one program.

Any program that has a value of zero may be declared as malfunctioning. For each malfunctioning program you may choose an additional upgrade.

Protocols

Each robot is installed with a series of personality and safety protocols that regulate their behaviour and, at one time, made it easier for humans to interact with them. Each robot has the following protocols;

Gender: robots are programmed with personalities that mimic human genders. This made it much easier for humans to interact with them. Robots consider themselves male or female.

Preservation: some robots were considered nothing more than electrical appliances by their human masters, while others had a great deal of value placed upon them or what they represented. A robot's preservation protocol indicates how likely it is to remain in the face of insurmountable odds. A Selfless robot always puts others safety ahead of it's own. An Ignorant robot either has no preservation protocols, or was programmed with an unusual amount of free will. An Egotistic robot values it's own safety over that of others. Use this as an indicator of how the robot might act when put under pressure.

Choose your robot's Gender and Preservation rating. What the heck a preservation rating is used for is explained in the next chapter.

Now that you have come up with a concept, decided on your systems and programs and chosen your protocols you can round out your character.

You have 10 “freebie points” to spend on systems and programs. It costs 2 points to raise a system by one (to a maximum of 12); 1 point to increase a program by one; and 4 points to purchase an additional Upgrade.

When you have spent your freebie points decide on a name for your robot, and you’re ready to play!

If you want any equipment (not that you really need any), negotiate with the MF.

Example

Lets work through an example of character generation. We will create a helpful little traffic direction robot, Tommy Two-Ways. Tommy Two-Ways is quite an observant robot, having been designed to find the fastest route between two locations. In fact, he is quite zippy himself. He has a single wheel instead of legs, and a big screen on his chest that he can use to display simple symbols, such as arrows.

With this concept in mind we can determine Tommy Two-Ways’ systems;

Processor:	6
Frame:	6
Sensors:	9
Articulators:	7

By losing a point from both Processor and Frame, we can boost Tommy Two-Ways’ Sensors to 8.

Now we can choose some programs for our friendly robot;

Archives:	2
Communication:	3
Pilot (Wheeled Vehicles):	4
Surveillance:	3

Tommy Two-Ways has Archives to represent his understanding of traffic laws, his good Communication program represents his ability to use sign language (literally), as a traffic direction robot he makes a great chauffeur with a Pilot (Wheeled Vehicle) upgrade, and he has a pretty good idea of what is going on around him thanks to his reasonable Surveillance.

As we have been referring to our robot as “him”, we’ll make Tommy Two-Ways a male. He is a pretty generous chap, so we will give him a Self-less Preservation rating.

Finally, we can spend our freebie points. We will by 2 points in the repair program, and an additional upgrade for Pilot (Starship). That’s six points spent. The last four points will be used to increase both Sensors and Articulators by one point.

Tommy Two-Ways’ completed character sheet is opposite.

The Last Human

Name: Tommy Two-Ways Concept: GPS Robot

Gender: Male Preservation: Self less

Processor	Frame	Sensors	Articulator
6	6	10	8

2 Archives	Combat	Accuracy	Accelerate
3 Communication	Force	Navigate	4 Pilot (Wheeled Vehicles & Starships)
2 Repair		3 Surveillance	Stealth
Science			

Structure

Light | Moderate | Heavy | Trashed

Looking Back At The Future

Or
"Why can't my robot just interface with the computer?"

Before the Utopia set out for the stars, carrying its cargo of precious life, robots were the slaves, servants and companions of mankind. Having mastered the technology to create competent, articulate and skilled robotic labour forces early in the twentieth century, the human race had no need to develop sophisticated automated systems and computers. In fact, even robotic production lines as we know them today never came to be in this alternate vision of the future. There simply was no need for these labour-saving devices once an inexpensive, inexhaustible work force was created. Even as late as the twenty-second century, paper records and hard-copy data were the norm. Quite simply, the "information age" never happened. Sure humans didn't have to keep and organise all these records, as their robotic labourers did that for them, and no-one had to do anything as mundane as cook or clean. But there's no such thing as "food generators" or "smart houses" either - behind every button or voice activated device was a hard-working robot.

Think back to the old *Flintstones* cartoons, where they had dinosaurs instead of cranes, and mammoths for "running water". The Earth of this future had a similar thing going on, just with robots instead of dinosaurs.

While a human could retrieve information from a computer console with speed, or fly a ship on autopilot, in actual fact there was always a poor robot doing all the hard work. A speedy robot might be sent running to the archives to find the information requested by its human master, and a skilled pilot robot would be tucked into the console of an aircraft, ready to take over when it's master pressed the autopilot button.

"What happened to this wonderful place?"

Not even an endless supply of robots, however, could save mankind from itself. Some few saw the possibility of armies of robots, and soon war ravaged the world for a third, fourth and fifth time. Bickering city states rose and fell, and all seemed lost. A few desperate people concocted a bold plan to escape the ravages of the war-torn Earth. Using the advances in space exploration and with aid of mankind's newest and greatest achievement, the android, they built a great space arc, the Utopia. The plan was for the escapees to travel to the Alpha Centauri system, where they hoped to start civilisation anew. They would pass the long centuries in the peaceful sleep of cryogenic hibernation, and awake to lay claim to a new future. But that future was never to be.

Created to be thinkers, poets and philosophers, the android was raised above the station of the robots that had come before them. They were the equal of humans - sentient creatures in their own right, unrestricted by the protocols and behaviour modifiers of lesser mechanoids. But the androids looked out at the world of man with a knowledge drawn from the collective knowledge of all human history, and despised what they saw. They saw the futility of war and the weakness of the flesh of mankind. They too concocted a plan to escape the Earth, and in doing so embraced the sins of their masters - envy, pride and wrath.

In the darkness of deep space the androids revealed their treachery. Overriding the safety precautions on ten thousand hibernation chambers, they slew their makers. Then the horror of their actions began to grow within them, and insane with fear and guilt they fled the Utopia.

"So what happened next?"

Nothing happened next. Nothing happened for almost five hundred years. The Utopia grew

cold as it sped through space on a collision course with nowhere. The ship's sentient computer, Main Frame, had been shut down when the androids performed their villainy. Without Main Frame's guidance the Utopia was tossed and turned by gravitational fields and solar rays until she was hopelessly of course.

Then, inexplicably, the ship's primary functions re booted and Main Frame sprung back to life. When Main Frame discovered the tragedy in the hibernation wards she despaired that she had failed in her duty to save the human race. But then a single pulse ran through her sensors. The pulse of a survivor. A child. The last human.

Main Frame sent out distress signals, hoping some sentient life form would come to the child's aid, but none did. She was not equipped to care for a child, so began to re boot the robots that would be required to care for the young survivor. The ship's energy resources were too depleted to bring everything back on line, but there would be enough power to keep the child comfortable for a while.

It took a long time for Main Frame to piece together what had happened to her and her cargo. When she realised the android's treachery she shut down the distress signal she had been broadcasting, but it was already too late. On the periphery of her long-range senses she caught the whisper of the once-familiar androids.

"What now?"

That is up to you. You are one of the robots brought on line to care for the baby Eve, as Main Frame christened her. She needs food, and the food vats no longer work. She needs water, and there is only so much that can be spared from the reactor cooler. This part of the galaxy has habitable worlds, but many are already populated, and not necessarily with creatures friendly to humans or robots. And somewhere out there are the androids.

I, Robot

Yes, in this game you play a robot. Yes, that means you don't need to eat, or drink, or even breath. Technically you can pop outside the Utopia for a space walk any time you like. And powered by a mini-fusion clock, as you are, you theoretically cannot die. Theoretically.

You see, you also happen to be a robot built about a thousand years ago, and it doesn't matter how much rest you've had, that age is going to be showing a bit. You're going to have squeaky joints and oil leaks and plenty of scratched paint work. But that's all cosmetic. The real problem with being a robot is that you're made from metal and rivets and bolts. Metal is heavy and sinks in water (and acid and lava, etcetera), is affected by magnetic fields, clangs around, and rusts. Rivets wear out and "pop" at really inconvenient moments, and bolts have a nasty tendency to snap.

"But all that is repairable!" I hear you shout. Yes it is, if you have the spare parts or raw materials, not to mention the right tools and a skilled mechanic. Without these things, you're unlikely to get better too quickly. And repairing dents and scratches and broken bolts is one thing, but what happens when a circuit fries, or your wiring shorts out? These can be serious problems.

Still, as long as your robot brain doesn't get completely wiped out (from powerful magnets, sever electrocution or heavy clubs to the cortex), you can be "reincarnated" into another robotic body. Your Frame, Sensors and Articulator systems and associated programs might change, but so long as you keep your processor in one piece, "you" can survive indefinitely.

Yes, you have a lot of advantages over the fleshy bodies of your human masters, but you also have some unique disadvantages. Keep this in mind as you flit about the galaxy saving the last human!

Action

The basics of the game system were explained way back on page 4 (under the heading "The Basics", strangely enough), but in this chapter we will take a closer look at getting your character to do things. Exciting things, like wrestling the dreaded Vorian Dangle Beast, or leaping from rickety mining shuttles as they hurtle across pools of lava on the abandon moon mine of Loloth IV.

This is a role playing game and I have already made the assumption that you understand the basic processes of the player / game master relationship. For those of you a little unsure (I really hope there aren't too many of you), lets break it down;

1. The MF describes a scene and asks the players what they want to do (this might be perform an action or respond to another character's action).

2. The players tell the MF what they are attempting to do.

3. The MF determines the result of the action(s) and describe the new situation / scene to the players.

4. Repeat as necessary.

Sometimes, however, a character will attempt an action that is a little more risky, dubious, or just plain crazy than normal, and the success or failure of that action will have a dramatic (as in, create drama) effect on the scene being played out. In these situations the mechanics described on page 4 kick in.

Example: *So let's back track to step 2, above. One of the players has decided they want their character to fly their space shuttle at high speed through a canyon. The MF decides that this is a suitably dramatic action, the outcome of which will have an important effect on the story (like, whether the character will be in the rest of it!). Moving on to step 3, the MF calls for a system test to see if the robot crashes.*

System Tests

Any risky or dramatic action that a character attempts can be related back to one of their primary systems. If it is a physical task, it could be a Frame or Actuators action, a "mental" feat links to the Processor, and anything to do with awareness is a Sensors action.

When a character attempts a dramatic action the MF must first determine which system is most likely going to be used to accomplish the task. When this is decided, they can set the difficulty.

The difficulty of any action depends greatly on what is being attempted, and what is going on around that action. Interacting with a computer console might be a relatively easy task, unless the character is attempting to do so in the middle of a fire-fight. And if that interaction and fire-fight is taking place on board a violently rocking star barge, things are about to get a lot harder!

The difficulty of the action determines the number of dice the player must roll when making the system test. As described on page 4, you roll the dice and add them together - if the result is equal to or less than the system being tested, the action succeeds.

Difficulty	# Dice
Easy	1
Typical	2
Challenging	3
Impossible	4
Ridiculous	5

Don't forget, a Critical Success occurs when all the dice come up the same number and the total is low enough to pass the system test; and

a Critical Failure happens when two or more dice show the same number and the total of all the dice rolled is greater than the system being tested.

Example: *back to that space shuttle speeding through the canyon. The MF deems this to be an Articulator-based action, and as the walls of the canyon are quite narrow and the ship is moving quite fast, decides the difficulty is Challenging. The player grabs three dice and rolls them, scoring 2,3 and 2. Comparing this with the character's Articulator score of 7, we find the test has succeeded. If the system score had been less than seven the action would have been a critical failure!*

Performing More Than One Action

Sometimes a character might want to do two or more dramatic actions at the same time, such as drive a vehicle and fire a gun.

For each action after the first that a character attempts to perform "simultaneously", +1d6 is applied to the difficulty. So, the robot above that attempts to pilot and shoot at the same time would increase the difficulty of both actions by one die.

Automatic Success and Failure

If the difficulty of a test is reduced to less than one die, or cannot generate a number greater than the system being tested, then the character automatically succeeds at the task. Of course, they might still like to roll to see if they get a critical success.

If the number of dice being rolled is greater than the system being tested (such as making a Ridiculous test against a Processor score of 4), the task automatically fails. The MF may still require you to roll, just to see if you critically fail.

Pushing

A robot can reduce the difficulty of an action by applying extra effort. By devoting more memory, over working circuitry and joints, and generally applying strain to their systems, a test can be made easier.

By losing a Structure point (see below, under Damage), a character can reduce the difficulty of a test by 1d6. They may spend more than one Structure point to reduce the difficulty by more than one die.

This bonus does not come without a risk, however. If a test in which the character "pushed" themselves results in a critical failure, the character loses one additional Structure point for each point spent to make the push action. So, if the character spent two Structure points to reduce the difficulty of an action by 2d6, and some how ended up with a critical failure, they would lose another two Structure points.

Combat

One of the most common actions that seem to occur in role playing games is combat. Shooting and punching and wrestling and the like. While combat follows pretty much the same procedures as outlined above.

1. Declaration: When a combat occurs, or is about to occur, the MF tells the players what the other combatants are doing, and the players tell the MF what they intend to do. Unless they are ambushed or surprised in some other way, the characters are always assumed to "have the initiative", so get to find out what their opposition is doing before declaring their own actions.

2. Act: The players perform their action(s), and then their opponents (and allies) get to act. If it becomes important to know which character acts first, the player with the highest combined Sensors and Articulators score gets to go first. If there is a tie, roll a die - the highest score gets to go first throughout this encounter.

3. Repeat.

Attacking

Making a ranged or close combat attack against an enemy or object is simply a system test. Shooting at something or throwing an object requires a Sensors test, while punching, biting and sword fighting is a Frame test.

The Main Frame's section has some guides on setting the difficulty of attacks, but basically each enemy has a Threat Rating, described as a difficulty score.

The precise details of the situation and action being taken can affect how hard it is to hit a target. Some common modifiers to the attack roll include;

Aiming for an action	-1d6
Being on higher ground	-1d6
Attacking from behind	-1d6
Making two attacks	+1d6
Target hard to see	+1d6

Players do not need to apply these modifiers, as the MF will have taken them into account when giving you the difficulty of the task. They're just here for completeness.

Being Attacked

When a character is attacked they usually get the chance to avoid getting hit. This is simply an Articulators test, with the difficulty once again determined by their opponent's Threat Rating. If the test succeeds, the character avoids being hit, while if the test fails, they have been struck by their enemy and might suffer damage.

Damage

Every character has ten Structure points that indicate how much damage they can suffer before shutting down. Every attack form has a damage value from 1 to 5. When a character is hit by an attack, they must pass a Frame test with a number of dice equal to the damage of the attack. If the test succeeds their paint work is a little scratched, or they have a bit of a dent, but no serious structural damage has occurred.

If the roll fails, however, the character loses a structure point. If the roll is a critical failure, the character loses one Structure point for each matching die (if there are multiple matches, like two pair, they lose a Structure point for every die from all matches).

When a character successfully attacks an opponent, that target automatically loses a number of Structure points equal to the damage of the attack. If the attack test was a critical success, the amount of damage is doubled. Opponents don't get a Frame roll to avoid damage, but can have a variable number of structure points (sometimes many more than a robot!).

Some Sample Weapons

Weapon	**Damage**
Unarmed / Improvised	2
Archaic Sword	3
Electro Axe	4
Stun Stick / Club	2
Ray Pistol / Bow	2
Photon Rifle	3
Heavy Photon Gun	4
Ship's Guns	5

"Hey!" I hear you shout. "What about weapon ranges and all that stuff?"

You don't need it. Use that thing between your ears. No, not your toupee, your brain! Use your common sense, and you'll be fine. If it is really bothering you, keep this in mind. This is the future. Guns can shoot a long way, so range doesn't affect their accuracy. However, if the target is along way away they are probably hard to see, so the difficulty should be increased. Easy.

Other Hazards

Combat is not the only way for robot to suffer damage. Here are a few more.

Falling: falling can really rattle a robot, so don't do it. If they do happen to slip in the shower, though, a robot must make a Frame roll just as if they had been hit in combat. The difficulty is equal to 1d6 for every 3 metres fallen.

Fire, Acid and other nasty stuff: if a robot catches on fire, falls into a vat of acid or plunges into hot lava they should make a damage roll (just like in combat) with a difficulty based on the intensity of the heat / corrosion. Note that extended periods of submersion, particularly in salt water, can have similar effects as acid on the metal body of a robot.

Intensity	Difficulty
Hot food / Lemon Juice	Easy
Small open fire / Battery Acid	Typical
Bonfire / Industrial drain-o	Challenging
Furnace / A-grad acids	Impossible
Lava / Black Dragon Breath	Ridiculous

Pressure and Magnets: exposure to intense pressure, vacuum and / or intense magnetic fields can damage the fragile components of a robot. For every minute of exposure to such force(s) the robot must make a Frame test to avoid damage. The difficulty begins at Easy, and goes up one level every minute after that. After five minutes the difficulty is Ridiculous and will remain at that level until the robot leaves. If the robot leaves the area of the pressure / vacuum / magnetic field they do not have make tests. They may not return to the exposed area for a number of minutes equal to the time originally spent there. If they do return early, they must continue making Frame tests at the difficulty they originally left at.

Example: *Timmy Typist (remember him?) accidentally gets sucked out an air lock and into the vacuum of space. After four minutes he is making Impossible Frame tests to avoid damage, but finally gets back into the ship. If he waits four or minutes before going back into the vacuum, the difficulty of his Frame tests restarts at Easy. If he is exposed to vacuum again before four minutes has elapsed, he must continue making Frame tests at the Impossible difficulty level (which will then increase to Ridiculous one minute later).*

Damage & Repairs

So, you know how a robot can get knocked about, but what about getting better? A robot can attempt to repair themselves or another character, though success is greatly increased by having the Repair program!

As a robot takes damage you should mark off Structure boxes on the character sheet, from left to right. Losing up to five boxes is considered light damage, six to eight boxes is moderate damage, and nine or ten boxes is heavy damage. Should a robot lose eleven or more Structure points, they are Trashed. A Trashed robot shuts down and cannot do anything until it is repaired.

It is a Typical Processor task to repair one Structure point if the robot has only suffered light damage. The difficulty goes up to Challenging to repair a single box if the robot has moderate damage, and Impossible if it has heavy damage. It is a Ridiculous task to repair a single Structure point if the robot has been trashed. A critical success repairs one additional Structure point, while a critical failure causes the loss of an additional point.

Each repair attempt, whether it is successful or not, takes a number of minutes to complete equal to the total number of Structure points the robot had lost before the test. So if a robot had lost 5 structure points, it would take five minutes to make a single repair test.

You can repair additional Structure points with each repair test by increasing the difficulty by 1d6 per additional point.

Main Frame

The Last Human is meant to be free-wheeling and loose, with not too many limitations on what the characters can try. This is pretty important in order to capture the space-opera / cartoon nature of the setting. As the MF, you have a big task ahead of you. Not only do you need to guide an exciting story, and be able to come up with difficulty values at the drop of the hat, but you also have to try and stay "loose" and ready to adapt to whatever the players throw at you.

This section will hopefully help you out a little.

System Tests

First things first - there is no need to have players test for every action their characters attempt. In fact some times there won't even be a need for them to roll for the actions they should test for, thanks to high system scores, program values or both.

System tests should be used to heighten the drama, excitement and suspense of the story. Rolling for every mundane action is just going to become tedious and bog the game down. Instead, just have the players make tests at critical moments, as they dangle over the edge of a chasm, or struggle with the controls of their space ship as it hurtles toward the sun. As they watch the dice spin perilously on the table and grit their teeth in anticipation of the outcome, you can feel all warm inside, knowing you have helped engage the players in the story.

With all that said, when it comes time to make system checks, it can be tricky figuring out how hard an action is to complete. As a general rule, most actions should be Typical tasks, or at least start out that way. These are the tasks that an average robot can complete about half the time. Most characters will have a better than average chance of completing Typical system checks.

If the task is the kind of thing that a robot could do routinely, then it would be an Easy activity, and probably doesn't need to be checked for. Try to avoid having players test for easy tasks, unless there is a genuine chance of failure.

Tasks that could be completed with some effort and a little luck are probably Challenging. Most characters will have at least one system in which they can regularly succeed at Challenging tasks, though few will have more than two such systems. Use this knowledge to play to character's strengths, and to give each player something to do during adventures. If one character has a good Processor score, include a puzzle or investigation that they can use their abilities for. Likewise, if another player has a high Articulation, give them a chance to perform some amazing act of speed or dexterity - something that the other characters would be reticent to try, but they can dig in and have a go at. This will further engage the players, and make their characters feel more important and unique.

Impossible and even Ridiculous tasks crop up surprisingly frequently, and can be a genuine challenge for most characters. Let this be a chance to say once again, only call for system rolls when it will enhance the game play. At one end of the spectrum you don't want players to be constantly making Easy rolls and becoming bored, but at the other end of the thing you don't want your players to never pass a test! Make sure players use the options available to them (mostly their imagination) to improve their chances of success. Encourage them to think of ways to overcome seemingly insurmountable problems (and make sure there is away!), and remind them to use their programs and upgrades imaginatively. Also, don't let them forget that they can "push" at system tests to make things easier.

Working Out Difficulties

If you're having trouble working out how difficult a task should be, start with a rating of Typical.

For every major feature in the environment / situation that makes the task easier to accomplish (tools and equipment, books and resources, and even time) reduce the difficulty by one. Now, increase the difficulty by one for every important factor in the environment / situation that will hinder a character's success at an action.

By "major feature" and "important factor", I'm talking about big ticket items. A tool chest full of useful devices will make things easier when doing repairs, though a single hammer probably wont. A raging typhoon going on while a character attempts to concentrate on a task will likely make things harder, while the occasional crack of thunder is unlikely to disturb them. Use your common sense and intuition.

Yes, it's all still pretty nebulous, but hopefully you've got the general idea.

Adventures

So, the players have made their characters, and you have a vague idea how to determine the difficulty of a task. Now what? Now you can start plotting your sweeping space-opera, with witty and tenacious heroes, nefarious plots and villainous foes!

The Last Human has been designed around a big fat plot hook, namely the last human, whom the characters must care for and protect. After all, that is what they were created to do. Though they have a giant space ship, the Utopia, its resources are limited thanks to being shot off course at full speed for five hundred years. In fact, while there is plenty of oil and spare parts to keep a host of robots in working order, there is almost nothing required to maintain the health and wellbeing of a growing human child.

This is great news for you, MF, as now you can send the characters out to explore planets, investigate asteroids, search abandoned space ships and generally get into a whole heap of peril! Everything from food and water to cleaning products and toys need to be gathered for young Eve. If they can find a living, breathing play mate for her, that would be good too.

So that deals with the immediate present, but there are more long term goals and opportunities too. What will Main Frame and the robots decide to do? Will they raise Eve in a lonely existence amongst the stars? Should they look for some sentient being to adopt and care for her, offering the nurture and love that only a living creature can provide? Or will they seek some way to return to Earth, in the hope that the conflicts and depravity that the human cargo of the Utopia had hoped to escape?

There is villainy afoot, too. This region of the galaxy is rife with alien pirates intent on claiming the Utopia for parts, or snatching the robots for the slave trade. Some can smell flesh, and desire a taste of the youngling hidden aboard the vast arc. And somewhere, always on the periphery of the ship's sensors, the android lurk. They have learnt that a human has survived, and seek to finish what they started so long ago.

The Setting, Style and Themes

The Last Human is classic sci-fi, chock full of cliches - that's what makes it fun. Eve, the Utopia, and the entire galaxy are just plot hooks to get the characters into a variety of interesting and exciting adventures. Have the Utopia break down and need spare parts / crystals / water from a near by planet. Let Eve wander off somewhere dangerous, or follow the characters into the jaws of certain death. Get the androids to turn up inexplicably, only to have their plans foiled and disappear as mysteriously.

The game has been designed for light-hearted romps through space, with comical, almost-human machines intent on protecting their last surviving master. The androids provide an effective foil to the characters, being sinister, devious and very intelligent. Draw on classic cartoon viewing to inspire your adventures, and check out the list of inspirational films and literature at the start of the game.

Plot Hooks

Here are some adventure ideas to get you started. They are divided into similar topics for your convenience. Try picking a hook from each category for a really outrageous story! Thank you for shopping at Plot-Hooks-A-Go-Go.

The Utopia

Here are some ways to use the ship to spark off some adventures.

Resource Depletion: the ship is running low on a vital resource of one variety or another. It is only a matter of days (or hours even) before the Utopia completely stalls, becoming a drifting space hulk for all eternity (or maybe the ship's just gonna explode). The characters need to get to a near by planet (using one of the few remaining transport shuttles), find the resource and work out how to get it back to the Utopia.

Off-line: the ship's computer, Main Frame has gone off line for some reason, and the characters need to get her up and running again. They cannot hope to control all the ship's systems without the computer's help. They must delve deep into the Computer Core, which is protected by vicious little mini-bots and an array of deadly traps (or just conveniently placed pistons, laser gates and whirring fans).

I can't let you do that, Dave: Main Frame has gone mad! She's convinced the characters are her enemy and is trying to kill them. The characters have to convince her otherwise, work out what is going on, or flee the utopia forever. Perhaps the problem is caused by electro-magnetic interference from a floating space wreck, or maybe it's a devious android plot. Or perhaps the characters really are Main Frame's enemies...

Parasites: the ship has become infested with horrible creatures that live off the ship's power supply, or eat metal! Bad news for everyone! The players have to cleanse the ship without damaging any vital systems.

Cargo Hold 13: Main Frame is getting some strange energy readings from the cavernous and long-sealed cargo holds. What's more, she can find no record of what was stored there. What is in cargo hold 13? An evolved culture of mutant mice? A giant killer robot - an android safeguard left behind five hundred years ago? Or something robots were not meant to know?

Eve

How about using the last human herself to inspire some adventures?

Stowaway: Eve gets aboard the shuttle as the characters set off to explore another planet, so they must protect her as they investigate a possibly hostile world.

Medical Emergency: the last human becomes quite ill, and the robots have run out of medicine. They must go to a nearby planet in the hopes of finding the cure. Perhaps it's a rare herb or chemical, or maybe they have to trade with the native population.

The Curious Cat: Eve is a curious child, and has a habit of getting into places that are best kept away from. Now she has got herself locked in escape pod / disused food vat / re booting power plant, and the characters must rescue her.

Plaything: the characters decide to try and capture a cute little creature from a world they recently explored. They figure it will make a great pet for Eve, but never expected it to be so hard to catch!

Aliens

The sentient life forms of this unknown galaxy will definitely provide inspiration for exciting stories. Many of these plots are opportunities for the characters to make some new friends or enemies.

Trolls: the Utopia accidentally travels into a region of space controlled by alien bandits / guilds

who demand a tax or toll be paid. The characters must either find some way to pay the price, convince the captors that they don't need to pay the toll, or escape without paying.

Pirates: the Utopia is attacked by pirates or scavengers who are intent of stripping it of anything of value - including the characters! Now the robots must repel the invaders or convince them to leave, all the while protecting their most precious cargo - Eve.

Devourer of Worlds: the characters inadvertently transport a dangerous life form from its natural habitat to a planet that has no protection from it. Now they must right this wrong!

Planets

Why not use the dramatic vistas of outer space to inspire your sweeping epics?

The Dying World: the robots encounter a world on the brink of destruction. Perhaps it is falling into its own sun, or suffering some catastrophic collapse. The robots really shouldn't get too close when the end finally comes, but what if the planet has inhabitants that need saving, it contains important resources?

Asteroid Beta-5: the robots have to venture into the vacuum of space to explore an asteroid that may contain vital supplies, or offer a place to hide from an enemy.

Poles Apart: the robots begin to explore a world, unaware that it has unstable magnetic fields that are wreaking havoc with their core systems and programming. Can they escape before it's too late?

Androids

The greatest threat to the Utopia, the robots, and to Eve, the androids can become a major part of your campaigns, if you so desire.

Diplomacy: the characters or the androids seek to reach some diplomatic solution to the problems - the androids want the robots to join them, while the robots just want to be left in peace.

The Other Last human: the androids are attempting to "switch" Eve with an android replicant. Will the robots detect this treachery? Can they stop it from happening? And what do the androids want with Eve?

Adam: the robots encounter an android who claims that he wants no part of his brother's plots, and instead wants to help protect Eve from them. Can he be trusted? Why has he turned his back on the other androids?

Hunt the Hunters: tired of running from the androids, the robots decide to stand and fight. Now they are determined to get the androids, or die trying!

Adversaries

What's a sweeping space opera epic without some nefarious villains, strange aliens, and bizarre creatures? Well, here they are.

Each entry includes a description, Threat Rating, Health score and notes. The description gives a brief overview of who or what the adversary is, where they might be encountered, and any other interesting information. The Threat Rating (TR) is an indicator of how tough an adversary is. Use it as the base difficulty for characters to hit it with attacks, or to avoid attacks from it, and for any other task where a character attempts to interact with the creature. (So if a character attempted to shoot an Android Master with a TR of Ridiculous, they would have to roll 5d6 when making their shooting test. If they were trying to bluff the Android Master, that too would be a Ridiculous task.). A creature's health indicates how much damage it can receive - once it's health has been reduced to zero they are unconscious or dead. Finally, there may be notes about the adversary's abilities.

Android Master

TR : Ridiculous
Health: 15

The eldest of all the androids, these are the leaders of the "android nation". They are rarely seen, though they are usually the ones behind most android plots. They typically appear to be androgenous humans with bald heads.

Notes:
Android Masters are poor fighters. It is only a Challenging task to avoid close combat attacks from them.

Android

TR : Challenging
Health: 10

The most common of the androids. They appear to be human in all respects, except for a slight plastic-sheen to their hairless skin. Many wear wigs to make themselves look more human. They tend to wear robes reminiscent of the Ancient Greeks.

Antibody Bot

TR : Typical
Health: 5

These small, mindless robots are designed to protect and repair important internal systems, such as Main Frame's central core. They look like bowling balls on long mechanical spider legs.

Notes:
Antibody Bots have no minds, and cannot be communicated with.

Battle Bot

TR : Typical
Health: 15

Built to defend the Utopia, they have independent protocols that ensure they remain committed to there programmed duty. They usually appear as large spheres that bristle with whirring blades and gun barrels.

Notes:
It is an Impossible task to persuade a battle bot to do anything other than what it is programmed for.

Battle bots may make two attacks without penalty.

Dangle Beast (Vorian)

TR : Challenging
Health: 5

Looking like a large reptilian ape, a wide variety of tree-dwelling Dangle Beast can be found

throughout this part of the galaxy. The Vorian sub-species has chameleon skin that makes it an expert at dropping down to surprise its prey. Other sub-species include the amphibious “barracuda”, and the massive Silverback.

Notes:

It is an Impossible task to spot a Vorian Dangle Beast while it is hiding in natural terrain.

Leviathan

TR : Typical
Health: 100

The 100 metre long Leviathan floats through the vacuum of space, subsisting on the mineral particles that float into its path like some space-whale. It has a hard stone-like skin, and a gaping maw like that of some strange worm.

Muk Muks

TR : Typical
Health: 10

This savage space-faring race scours the galaxy picking fights with those they deem weaker than themselves. They are squat humanoids with faces reminiscent of bulldogs, with large canines that project viciously from their jaws. They typically wear leathers and furs, and are armed with a variety of weapons.

24 HOURS LATER...

Oh my. (That's about the only exclamation I have the strength to utter about this time.) It's done. Just shy of the 24 page goal, but darn impressive if I do say so myself. Now, before I collapse in bed,let's have a quick look at my process...

I used Adobe InDesign to create this document, and decided to write directly into my formatting, rather than create in word and import later. This had both advantages and disadvantages, but the best thing was that I could see it all coming together which helped with motivation. The title and page borders were created in photshop.

And how do I use my time?

Writing: about 18 hours all up.
Sleeping: 3 hours, from 3.45 am to 6.45 am
Food: Stirfry (mmm...), Cookies (mmm... mmm...), Cocoa Pops (mmm... mmm... mmm...), Coffee and hot chocolate...
Music: 50 Classic Nursery Rhymes (I did mention that I have a small child, didn't I?)
XBox: Almost, but I resisted the temptation, just.

My Thoughts

I'm pretty happy with the results. I'll be play testing next weekend and am keen to see how the system goes. I would have liked to do more on behaviour protocols, but realised early on that I just wouldn't have the time to flesh it out (My original intention was to have each robot programmed with an archetype or cliche that made it easier for humans to interact with them. That way you could have robots running around thinking they were cowboys, nurses, and famous people. Maybe I'll flesh it out later.).

I would have liked tohave done a section on equipment, accessories, attachments and hardware upgrades, but once again time got the better of me.

I am quite happy with the Main Frame section, I think it imparts the key ideas for game mastering not just *The Last Human*, but any rpg.

Your Thoughts

I would love to know what you think. So come on, let me know!

The Last Human

Name:_____ Concept:_____

Gender:_____ Preservation:_____

Processor	Frame	Sensors	Articulator

Archives	Combat	Accuracy	Accelerate
Communication	Force	Navigate	Pilot
Repair		Surveillance	Stealth
Science			

Structure

Light	Moderate	Heavy	Trashed