

Game Design Document

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Overview

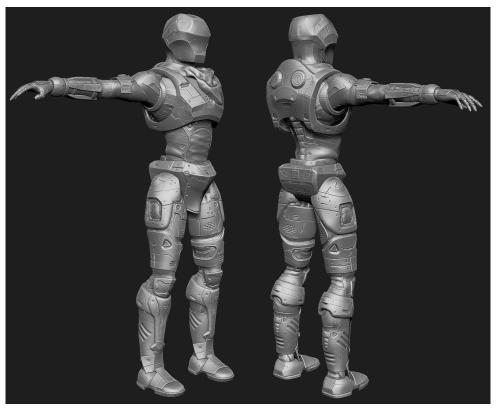
Qbots is a science fiction adventure game built in the Unity gaming engine. It follows a race of robots fighting survive on a hostile and dangerous world. The terrain is a fixed level voxel environment created with Voxeland and MapMagic that allows certain interactions with players, such as digging into the landscape and the deconstruction of certain types of trees. Other game assets are being created with a variety of programs.

Look and Feel

Qbots has a realistic but stylized look. The environment is an alien planet...but not *too* alien. Fairly Earth-normal with some alien plants, trees, and landscape features. Buildings and ruins are all futuristic. This is a science fiction game so there is no magic of any kind. Everything will have a realistic, scientifically accurate basis (though if we need to decide between *cool* and *accurate*, cool should usually win out).

Characters

Players are all **Qbots**, which are humanoid robots. There are no humans in this game.



Qbot main character (unfinished)

Players will battle **Malbots**, which are robot servants of an alien race called the Haxos. Haxos are organic creatures that hate all independent machine life not under their control. Some Malbots are actually former Qbots that have been infected with a virus that turns them into Malbots -- this is the Malbot Prime character and other humanoid variations. Players who are infected with the virus will die in the game unless they create the proper antivirus software with their **fabricators** (a built-in construction tool that all Qbots have).

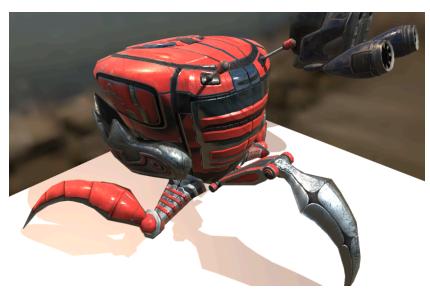


Other Malbots are designed for specific purposes. The primary types of Malbots in the game are:

- Malbot Prime -- main "humanoid" Malbot. Can melee fight as well as use projectile and energy weapons (not pictured; model has yet to be designed)
- <u>Chompers</u> -- small robots who swarm and attack in clusters with metal teeth that physically tear apart a Qbot



Side view of a Chomper



Rear view of a Chomer (dropship in background)



• Siphlingbots -- robots who drain energy from a Qbot or the batteries at a base



Siphlingbot (not finalized; requires retexturing)

• Goliath -- giant attack Malbot, very hard to kill



Image of a Goliath (not finalized)

Engagement

Players will have multiple ways to engage with the game. Since players are stranded on this world, basic survival is a priority. They will need to explore and extract raw materials from the environment in order to manufacture a base of operations.



Players will also need to defend themselves from attack from Malbots, in either single or multiplayer mode. There is also a long-form adventure game-within-a-game built into Qbots (but which will not be fully complete when the game is first released).

Story

The backstory before the start of the game...The Qbot homeworld was attacked by the alien Haxos. The Haxos destroyed much of the Qbot solar system before a small band of Qbots was able to escape through an orbital wormhole gate. They destroyed the gate after their passage, but not before some Haxos were able to pursue them.

Location of Gameplay

The Qbot survivors crash landed on an abandoned Qbot colony world call **Vonon**. **It is here where gameplay occurs.** The Vonon colony was destroyed long ago when factions of Qbots fought a civil war and caused the Great Collapse, which ended their civilization. There are still ruins of cities, spacecraft, and other technology scattered about the world that players can use for shelter or scavenge for energy or weaponry.

First-Time Startup of the Game

When a player starts the game for the first time, an overlay of text appears that provides a brief background of the game to orient players.

The text reads as follows:

Qbots are a race of intelligent machines who were driven from their homeworld by the alien Haxos, organic creatures who hate machine life they do not control.

A few Qbots managed to flee their solar system through a space-based transit gate but were followed by the Haxos.

They crash on an abandoned Qbot colony world. The Qbot civilization that once existed there was destroyed centuries earlier by a savage war, leaving only ruins of cities and technology.

The Qbots are stranded and must evade the Haxos and their robotic Malbot servants. They must build bases for protection and search for energy, weapons, and other materials to survive.

There are also clues on the planet regarding the Engineers, the legendary creators of the Qbots.

A sequence of numbers is scattered across the planet, broken into ten encrypted parts. Retrieve, decrypt, and assemble the numbers in their proper order to create the Engineers' Frequency, then enter the frequency into a functioning transit gate to learn the secret of the Qbots' creation.



This text appears only on the first-time load of the game, but will remain in a persistent "History of Qbots" tab within the inventory system for players to access at any time.

UI and Menu

The User Interface and Menu systems should be clean, efficient, and futuristic/high-tech in style. Since all player characters are robots, the UI and menu should be in the form of a functional Heads-Up Display (HUD). A Pinterest board with design ideas is located here: https://www.pinterest.com/vid989/game-menu-and-ui/

Fonts should be sans serif and thin and futuristic in style. A variety of weights and upper/lower case combinations should be used to differentiate key items and make them quickly and easily identifiable.

Persistent UI information to display include:

- Energy
- Health
- Object(s) in left hand and right hand
- Map in upper right corner [map defaults on but can be toggled on/off with CTRL+M]
 - The map displays location of:
 - City ruins
 - Crashed ships
 - Enemies
 - Other players
 - Solar trees
- Active weapon
- Other players
- Scanner
 - This is a window that displays items of interest that are in range of the Qbot
 - o Range is 50 meters
 - (there is a blueprint for creating a long-range scanner with a range of 1 kilometer)
 - Items the scanner identifies automatically are:
 - Blueprints
 - Energy cubes
 - Weapons
 - Fabrication cubes

Qbot Character Essentials

There will be one Qbot design to begin with, though players will have a choice of several color schemes. Players will be able to choose a unique name when loading the game for the first time.

All players begin the game with:

- 1. Built-in fabricator for creating items
- 2. Blueprint library of objects they can create
- Scanner
- 4. Pulse weapon (forearm mounted)
- 5. Beam weapon (forearm mounted)
- 6. Melee weapons:
 - a. Titanium rod (1 meter long)
 - b. Long-handled ax (futuristic design)



- c. Spear (futuristic design)
- 7. Laser drill digging tool for acquiring raw materials
- 8. Flashlight

Core Gameplay: BUILD

Players will have the ability to create a variety of objects to help them create a base of operations and additional equipment. Their built-in fabricators use nanotechnology to break down any raw material to synthesize simple building components, but they require blueprints to complete. Construction also consumes Qbot energy at a higher-than-usual rate. Because fabricators are built into each Qbots (along with an initial set of blueprints), construction can be done at any location; however, expending too much energy away from a recharging station can leave Qbots vulnerable to attack.

Qbots have a built-in set of "starter" blueprints but can acquire more by:

- Destroying Malbots and taking the blueprints that are unlocked when Malbots are destroyed
 - When a Malbot is destroyed, the available blueprints appear in the HUD as a list describing each
 - A message in the HUD appears that reads:

Shift + click to add to inventory

- Malbots carry between one and five blueprints (randomly generated)
- Finding blueprints in crashed dropships or city ruins

Built-in starter blueprints include:

- Walls (built by adding together individual block components -- 1 meter cubes)
- Doors (retract left or right into walls -- 1 meter wide x 2 meters tall)
- Garage doors (4x width of a normal door; retract into ceiling)
- Windows (vertical, horizontal, circular, octagon)
- Roof
- Ceiling
- Stairs
- Lights (ceiling mount, wall sconce)
- Repair station (for repairing combat damage)
- Energy station (for recharging if energy is low)
- Solar panels
- Batteries to store energy and power various items in the base
- Wireless energy emitter (to beam power throughout the base)
- Decorative objects (these could be spheres/cylinders/blocks in different colors, or other objects that just look cool but don't have a functional purpose)

The starter objects are all simple to build and require mostly raw materials and a bit of time for the fabricators to synthesize. Qbots mobility is greatly reduced when Fabricating so doing it outside of a base also creates danger from not being able to easily escape if attacked. Fabrication can be interrupted but that drains a Qbot's energy level to the redline (see Dying for more information on low energy levels).

Blueprints that can be ACQUIRED during gameplay include:

• Energy reserve (allows players with low energy to receive a one-time boost to 100%; the reserve can be recharged at the charging station in n outpost)



- Lightning gun (wide dispersal energy weapon)
- Antimatter grenades
- Antigravity packs (allows for increased jump heights, not actual flight)
- Proximity alarms (for early warning of Malbots approaching the base)
- Three types of fixed-mount gun turrets for the base, each with increasing range and damage
 - a. pulse energy
 - b. energy beam
 - c. rail gun
- Armor variants for the Qbot character
- Shield generator for the base
- Portable body energy shield for better protection in combat
 - a. When engaged it has its own power supply level that will appear in the HUD
 - b. As it absorbs attacks from Malbots the power supply decreases until it reaches zero, at which time the shield collapses
 - c. The shield is not destroyed when it is depleted of energy, and can be recharged at a recharging station at the base
- Frequency locator (to find parts of the Engineers' Frequency)
- Decryption machine

Core Gameplay: BATTLE

Combat against the Malbots is a major component of the game. One of the primary reasons for creating a base is for protection from enemy attacks.

<u>Chompers</u> swarm in large packs. Individually they are fairly easy to kill, but the fact that they attack in large numbers makes them dangerous.

Malbot Primes attack with both energy weapons and melee weapons (if at very close range).

<u>Siphlingbots</u> are able to drain energy from both a Qbot and bases. If attacked by a Siphlingbot, a Qbot will be unable to use an energy weapon to kill it. Therefore the Qbot will have to either flee outside the range of the Siphlingbot's energy-draining beam or directly attack it with a close-range melee weapon.

A Qbot will a portable shield generator will have the shield's power completely drained by a Siphlingbot before the Qbot's own energy is affected.

<u>Goliaths</u> are nearly impossible to kill by a single Qbot without very high-powered weaponry, like a lightning gun or antimatter grenade. Without those weapons, a Qbot will be killed before it can harm a Goliath. The only way to kill a Goliath without those weapons is for multiple players to mount a coordinated attack.

Core GamePlay: SHARE

Multiplayer support is vital for ongoing engagement. Multiplayer support will NOT be managed through servers owned by Qbots LLC due to the very large capital expense of such a structure. We are exploring various networking options provided by Unity and/or Voxeland and MapMagic.

Core Gameplay: EXPLORE

Players will be able to explore the world of Vonon either on their own or with friends in multiplayer mode. There will be several biomes on Vonon:

Forest/grassland/mountains



- Desert with mesas (like the American southwest, not the Sahara)
- Dead Zone

A long-form adventure game will be included at launch, though the ability to complete the adventure will not occur until a later release that includes the Hidden City. (See <u>Adventure Narrative</u> section for details).

Points

Players acquire points for building base items and collecting energy. Players also earn points for combat and defeating Malbots (or other Qbots if multiplayer teams decide to fight one another). The stronger the Malbot, the more points earned.

Chompers: 10 points each
Siphlingbots: 25 points each
Malbot Prime: 100 points each
Goliath: 500 points each
Haxos: 1,000 points each

Haxos are always well guarded. They carry the M-virus that can infect Qbots to turn them into Malbots.

Points can be used to unlock blueprints for more complex building materials for bases, more powerful weapons, cosmetic armor variants, etc. There are LOCKED sections in the Blueprint Library that can only be accessed when certain point levels are reached.

Damage and Dying

Players can be damaged or killed in combat with Malbots or other players. They can also be killed if infected with the Malbot virus (though there is a blueprint for an antivirus program that some Malbot Prime's carry). The Malbot virus can only be delivered by a Haxos, not a Malbot. Damage is displayed as a persistent UI status bar labeled Health.

When a player is killed, the HUD displays a QBOT TERMINATED screen before the game ends and returns to the main menu. Players have the option of resuming the game or beginning a new game.

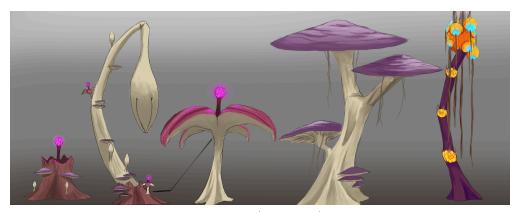
Qbots can run out of energy as well. When they hit the **low energy redline**, they are unable to use any type of energy weapon and can only fight with melee weapons. If they completely run out of energy they will enter a SUSPEND mode of operation, where they are unable to move for a period of 60 seconds while they recharge from sunlight and internal reserves. After one minute they will recharge to a 25% power level.

Leveling up a Qbot

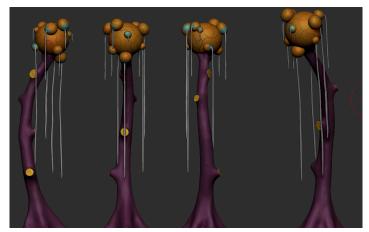
Environment

The world is generally earthlike, though it does contain alien plant life and ruins of the prior Qbot colony. A key environmental asset is a solar tree, which has biomechanical leaves that can be disassembled and used to help increase the power supply throughput at a player's base (in other words, batteries will charge faster, or more batteries can be charged in a shorter time frame).





Alien trees (concept art)



Alien vine tree (unfinished model)

Vonon has two moons, **Perlos** and **Revys**. Perlos is significantly larger than Revys. Perlos also has the larger orbital radius, which means the smaller moon passes in front of Perlos on a regular basis.



Perlos and Revys, the two moons of Vonon (concept art from Pinterest)

There are three primary biomes on Vonon:

1. **Forest/grassland/mountains** (largely "earthlike" but with alien vegetation and some larger-than-usual, monolith-like mountains)





Grassland (photo not from game)

2. **Desert biome** (again, with an alien flavor)



Desert (concept art from Pinterest)



Desert (concept art from Pinterest)

3. **Dead Zone** (this is the area where the cities are located -- the vegetation around them was destroyed by weaponry in the long-ago war)





Dead Zone (concept art 1)



Dead Zone (concept art 2)

Fabrication

Players have built-in fabricators they can use to build and equip their bases. As stated earlier, basic items can be manufactured with readily available materials from the environment (dirt, grass, rock, etc.)

However, using those materials takes time for the building process and uses significant energy for the nanomachines in the fabricators to break down and then construct the designated item.

To increase efficiency and create more complex items, players should use **fabrication cubes** in their fabricators. Dirt and rock and grass can create simple things like concrete, glass and flat steel (walls, doors, and windows for bases), but more complex items (weapons, new armor, or base sensors, for example) require fabrication cubes, which are a specific type of inert matter from which to build complex machinery.

If a player selects a base sensor blueprint from the **Blueprint Library** but does not have an inventory of fabrication cubes, the game will display a message that states:



This item requires FABRICATION CUBES in order to be manufactured. Add fabrication cubes to your inventory before attempting to build. Fabrication cubes require 10 points per cube to acquire, or can be found in various locations across the planet. Use your scanner to locate.

For example, a player encounters a crashed dropship in the landscape. The player can **scan** the ship to determine if it contains fabrication cubes, blueprints, and energy cubes. Some dropships will contain no items; others may contain some combination of the above.

Blueprints can be downloaded directly to the Blueprint Library after a scan.

Fabrication cubes and energy cubes require the destruction of the dropship with an energy weapon. The dropship will explode after 30 seconds of sustained attack. After the ship explodes, the cubes will be left behind on the landscape, where the can be collected by using shift + click to add to inventory.

Solar panels are a unique build item that will be discussed in the Solar Panels/Solar Trees section.

All building materials will have the same "strength" in the beta build of the game. This means enemy weapon fire will affect them all equally. The difference between granite and concrete is appearance and aesthetics only (so players can make their outposts look different with different building block designs).

Blueprints

Players start with limited menu of blueprints to build things. Part of the gameplay is to find blueprints for new objects or devices. Blueprints are a tabbed section in the inventory part of the menu and are added the same way as other objects (shift + click).

Process

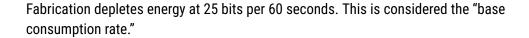
- 1. Player uses the drilling tool to acquire dirt/grass/rock/wood
- 2. Each "dig" acquires one block of building material
- 3. This is loaded into the inventory system in the RAW MATERIALS menu
- 4. If a player digs 100 times, he or she will have 100 blocks of raw material
- 5. Player accesses the fabricator from the menu
- 6. The fabricator UI will show a count of raw building blocks and fabrication cubes available
- 7. There will be a FABRICATION process available in the menu
- 8. The sub-menu from FABRICATION will be a choice of building materials
- 9. Player will enter how many raw blocks he wants to fabricate
- 10. 10% of raw material is lost during conversion
 - a. So, 100 blocks of dirt will yield 90 blocks of glass, granite, etc.
- 11. A horizontal status bar will indicate progress toward goal
- 12. When finished, status bar reads FABRICATION COMPLETE
- 13. Player now has finished blocks that can be used for building
- 14. There will be a numerical indicator in the menu of the number and type of finished material (example: 90 granite blocks)
- 15. Players select the **construction** tool from the menu, which activates a "ghost" holder in the shape of the block to be placed
- 16. Players then direct the "ghost" image where they want and click the mouse to place the item
- 17. The counter in the menu will show the number of items left until it reaches zero



Prebuilt items in the inventory--such as the gun turrets, doors, lights, etc.--cannot be used until an outpost has been built. If a player attempts to place these kinds of items as free-standing they will receive a message stating that they can only be used after a player has constructed an outpost.

Energy Consumption

Qbots require energy to be active. All players begin the game with a 100% supply of energy. Normal actions and movement do not deplete energy reserves. Energy is broken down into bits with 100 bits = full energy supply.





Combat depletes energy at 2x the base consumption rate.

- Destroyed Chompers yield 1 energy bit each
- Destroyed Siphlingbots yield 10 energy bits each
- Destroyed Malbot Primes yield 20 energy bits each
- Destroyed Goliaths yield 50 energy bits each

Solar Panels/Solar Trees

Players begin the game with a blueprint for solar panels, which require fabrication cubes for construction. They also require a battery and wireless energy emitter in order to beam power around the base.

Upon build completion of any base of operations asset that requires power (like a recharging station), one of two messages appears:

Successfully connected to base power grid [asset name] charging

or

You must construct a base power grid with solar panels and a wireless energy emitter in order to power this device

While charging, a status bar displays showing the item's charge moving left to right from zero to 100%. The charging status bar is red until fully charged, when it changes color to blue. The bar disappears two seconds after a full charge is reached.

Charging from zero to 100% takes 30 seconds.



Powering a Base

Players will need to construct a battery and wireless energy transmitter to power their bases. The battery stores energy — the wireless energy transmitter connects to the battery to beam power to devices in the base that require energy.

Once a battery and wireless energy transmitter are constructed and connected (the transmitter locks onto the top of the battery), players will receive a HUD message that reads:

Power grid online at 100% capacity
Your base now has a wireless energy grid to power your devices

Controller/POV

Players will have a choice between first-person POV and third-person POV. Players switch between POVs with the F-key. The mouse controls the direction of movement/field of view.

- 1. WASD for forward/back/left/right movement (this is duplicated on the arrow keys)
- 2. Spacebar to jump
- 3. Shift to run
- 4. I-key to access inventory
- 5. Q-key for last weapon used
- 6. Right mouse click to add weapon or tool to right hand from inventory
- 7. Left mouse click to add weapon or tool to left hand from inventory
- 8. Weapon switching: 1, 2, 3, 4
- 9. Left mouse click to shoot weapons
- 10. Left mouse + hold right arrow key to swing titanium rod/spear/ax to the right
- 11. Left mouse + hold left arrow key to swing titanium rod/spear/ax to the left
- 12. Left mouse + hold down arrow key to swing titanium rod/spear/ax downward
- 13. M-key to access the Map
- 14. R-key to reload energy packs for weapons
- 15. ESC to pause game

Inventory

Each player has an inventory that they can access from the Menu by pressing the I-key. The inventory contains both items that all players begin the game with ("standard") and items collected during gameplay ("acquired"). Standard and acquired items are collected in a single inventory menu and are not segregated.

When a player comes across an item that can be added to inventory (for example, an energy cube or a weapon), the UI will display the following message:

Shift + click will add this item to your inventory

Items are added to inventory by pressing the shift + click.



Items in inventory are saved upon exit or death of the player and will be available at the next game session.

The inventory system is designed as a grid overlay with labeled tabs across the top to define each category. Tabs can be opened by clicking on them with the mouse pointer or hitting the keyboard key that corresponds to the **bolded letter** in the tab label.

Within each tab is a grid of items available in that particular category, which are shown as small icons representing each item and a small text label beneath each. Items are selected with a mouse click or by using arrow keys to move across the grid and then hitting the ENTER key to select.

Inventory categories include:

- Fabrication [contains raw materials for construction, like sand, grass, dirt, fabrication clubes]
- Constructed Assets [contains finished items built with blueprints and fabricators]
- Base Construction [contains all materials needed for building the structure of a base]
- Weapons
- Tools
- Armor
- Blueprints
- **M**ap [shows a large-scale version of the mini-map]
- Frequency Container [repository for encrypted and decrypted parts of the Engineers' Frequency]

Assets

There are many objects, structures, and creatures that we need to add to the game. Please see the Obots Project Dashboard for a complete breakdown of required assets for the initial build of the game.

Sky Stations

These are air-based platforms that float via anti-gravity machines. They have a central spherical hub with multiple spokes radiating from the equator with round landing platforms on the end of each spoke. The Command and Control room is a wide circular platform on the top of the sphere with 360 degree windows.

Some sky stations have crashed, so there are wrecked versions on the ground in places, sometimes scattered over large areas. In the wreckage of the sky stations players can find:

- Power cubes
- Frequency Locators
- Weaponry
- Blueprints

In a future release of the game, players will be able to repair and power up dropships with energy cubes and attempt to fly them to sky stations that have not crashed.

Cities

These are abandoned cities throughout the Dead Zone biome. Most of them are in ruins.



Types of buildings in cities:

- Skyscrapers of different shapes and sizes
- Transit stations (where wormhole gate terminals are located)
- Warehouse-like structures



Warp Gate (finished model)

Some buildings can be entered, while others are sealed with doors that don't open. Later releases of the game may open some of these buildings with unique adventurous interiors.

Within the buildings that can be entered, there are:

Maze-like corridors

- Long, winding, little or no lighting, and what lighting there is may be intermittent and flickering
- Players will need their flashlights
- · Lots of doors along the corridors, most of them locked

Gravity inversions

In random areas the gravity will either invert or vanish altogether

Keys

- Keys will be randomly scattered throughout buildings
- Players should acquire the keys and try them in various doors they pass to see if they open them
- Players will receive a notification in their HUD that a key is nearby with locator arrows appearing in the field of view to direct them
- Some keys will open doors that lead to energy cubes
- Some keys will open doors that lead to armories where players can obtain additional weapons



- And a specific key--the **Gate Key**--will open a door that is a hidden wormhole gate leading to the Haunted City, a hidden level within the game
- The Gate Key is a small black rectangle of glass that can be entered into a slot on a wormhole gate control panel
- Players with a Gate Key will see the following message when approaching a wormhole gate:

Enter your Gate Key in the control panel to gain access to Lithea

The appropriate slot on the control panel will be glowing with a pulsing blue light

Trap doors

- There are trap doors randomly scattered in the floors through some of the buildings
- Players who fall through one end up in a dungeon-like basement where they must battle
 Monsterbots to escape
- Monsterbots are damaged and crazy robots who will try to kill anything that enters their area
- The basement contains a freight elevator and several stairways, which are the means of escape
- Monsterbots will not leave the basement but will try to prevent players from leaving



Monsterbot idea (from Pinterest)



Frequency Locator

A very few dropships and buildings will contain blueprints for frequency locators. These devices help to locate pieces of the Engineers' Frequency, which is part of the <u>Adventure Narrative</u>. Once a player acquires a locator it will become a persistent part of the HUD via the Map and will create a notification when near a piece of the Engineers' Frequency (see below for details).

Adventure Narrative

The end goal of the Adventure Narrative involves going to any one of the fixed-location wormholes scattered throughout Vonon and reprogramming it so it will open to the Engineers' Universe, where the Qbots believe they will find help to defeat the Haxos.

Parts of the Frequency

The frequency is scattered into ten parts, but the parts are also *encrypted*. The following is the list of the encrypted parts of the frequency:

- 1. H-117+
- 2. Helios-23
- 3. Nem-AW29
- 4. Argo/33x
- 5. Klynas-ptv0
- 6. Xedo:WAu13
- 7. Rne0.ce
- 8. Zns-[ede]
- 9. Aum[^]
- 10. Fe8-009

When a piece of code is collected, the HUD displays the following message:

One of the ten parts of the Engineers' Frequency has been added to your inventory. If you do not have a DECRYPTION MACHINE you will have to find a blueprint in order to build one.

Find all ten parts and decrypt them. You will then receive further instructions.

Players must find the proper blueprint in order to build a **decryption machine**. Once decrypted, the clear code frequency numbers are:

- 1. 865.63.7.w
- 2. 569.45.3.t
- 3. 337.29.9.s
- 4. 343.51.2.p
- 5. 664.30.9.e
- 6. 294.43.1.h



- 7. 082.25.6.b
- 8. 499.67.3.v
- 9. 174.59.8.q
- 10. 001.03.0.a

All Qbots are equipped with a **Frequency Container** in their inventory. A Frequency Container is what holds the different numbers that make up the Engineers' Frequency. When a player acquires a part of the frequency, it is stored in the container. When additional numbers are added they are placed in the correct order — see above for the order — in a column layout.

When all the numbers are assembled and decrypted, the following message appears:

Congratulations! You have successfully decrypted all ten parts of the Engineers' Frequency. No you must find a functioning wormhole gate and enter the frequency in the proper order to advance to the next stage.

Where the Parts of the Frequency are Located

There is only one copy of each piece of the Frequency in the entire world, and they are difficult to find.

They can be found in the following locations:

- 1. Dropships
- 2. City buildings
- 3. Sky stations

However, one piece of the code must always be located in the Haunted City in the Hidden Level of the game.

Using the Engineers' Frequency

Once all ten parts of the frequency have been acquired and decrypted, the following message will appear to players:

Enter these numbers into a wormhole gate to reach the Engineers

After entering the code and stepping through the gate, players will find themselves on Earth's Moon, with Earth hanging in the sky. The secret behind the creation of the Qbots is this: *Engineers are humans in our own distant future, who created the Qbots and then sent them to another universe in order to allow them to thrive on their own.*

Once players have arrived on the Moon, they will be prompted with the following message to broadcast a prerecorded data file describing the Haxos threat and requesting help.



Press ctrl+b to broadcast a prerecorded data file requesting help to defeat the Haxos

Players do not have to acquire the data file during the game—it is part of every Qbot template.

Before the data can be sent, Malbots who followed through the wormhole will attack. The Malbots are:

- Five Chompers
- A Malbot Prime
- A Goliath

The Malbots must be defeated before the broadcast can be transmitted. If players are killed, they are returned to the Qbot universe and will resume the game at their base.

If players defeat the Malbots, they can then broadcast the signal. A broadcast tone will beep for five seconds before the following message appears:

Greetings Qbot! You have reached Earth, the home of your makers. Long ago we created your kind and placed you in a solar system in an alternate universe where you could grow and evolve without interference from us.

We understand the threat you are facing from the Haxos and their servants. We will assemble a war fleet to travel to your universe and help you defeat your enemies. Please stand by.

END TRANSMISSION

This message ends the adventure narrative of the game. However, even though the adventure part of the game is "over," players are free to continue other modes of gameplay, which do not have defined end points.

Lithea, The Haunted City

This is a ruined metropolis that was once the capital of a powerful nation that was destroyed long ago during the war that caused the Great Collapse of the Qbot colony. The weapons used against Lithea were so strong they blasted the city into another dimension, where it is always night and dangerous monsters roam the streets.

Lithea is full of futuristic skyscrapers in various states of disrepair and ruin. Power functions only intermittently, with window and street lights always flickering. It is always nighttime here, with rain and lightning constantly in the sky and thunder grumbling through the streets.

Lithea is surrounded by massive cliffs with razor-sharp outcroppings that make leaving impossible. The cliffs are well over 1,000 feet high and have a weird sculpted look, the result of the city having been smashed into this alternate dimension during the Great Collapse.





Lithea (Pinterest)

Entering the Haunted City

There are only two means of entering the Haunted City, which is considered a hidden level within the game.

- 1. Players passing through a wormhole gate will randomly end up emerging in the Haunted City during a gate malfunction. This does not happen often.
- 2. Players who possess a Gate Key can slide it into a wormhole gate control panel to allow them to enter the city.

Entering Via Wormhole Gate Malfunction

Players will randomly enter the Haunted City through a malfunctioning wormhole gate. They will appear on the outskirts of the city near a spaceport, in the open near a ruined rocket gantry.

Immediately upon arrival, players are shown a text overlay that reads:

You have entered Lithea, also called the Haunted City. It was once the capital of a great nation destroyed in a long-ago war. The weapons used against it blasted the city into an alternate dimension where it is always night. Gigantic, monstrous beings roam the landscape.

To leave, you must make your way to the power station at the heart of the city and acquire a fusion cube from the main reactor. You must use the cube to power one of the wormhole gates located in the city's Terminus Center.

A piece of the Engineers' Frequency is in this city. You are advised to find it before you leave.



A map has been uploaded to your CPU that will show you the way to the power station. Once you have the fusion cube, the map will show you the way to Terminus Center.

But beware! There are deadly creatures here, inhabitants of this dark dimension who do not like outsiders. [Press Control+HC to show this message again.]

Players will be shown directional arrows in their HUD to lead them to the power station and Terminus Center. The maps are vertical translucent squares one meter per side resting on posts situated on sidewalks. The Engineers' Frequency can be located using a Qbot's built-in scanner.

Entering the Haunted City Using a Gate Key

This process was already described in the description of Keys in the section about Cities.

Monsters in Lithea

Lithea is inhabited by a wide range of monsters. Some are human sized with tentacles instead of arms, and faces that are mostly giant mouths filled with fangs. Others have massive bat-like wings and are strong enough to tear apart a Qbot, or pick one up, fly into the air, and drop it from a great height.

There is a giant monster called the **Ravager** that lives on the outskirts of the city near the power station. The Scavenger is made of bits and pieces of other machinery and torn apart robots, plus some organic materials, so it is very strange and scary looking. There is only one Ravager. It is difficult to kill, and the best survival strategy is to avoid it.

The Ravager can be seen in the distance moving around and roaring, and will try to capture players when they near the power station. Players who make it inside the power station are safe from the Ravager, but will have to avoid it again after they retrieve the fusion cube and make their way to the Terminus Center.

Retrieving a Fusion Cube

The power station is a massive facility covered with radar-like dishes and broadcast towers once used to beam power across the region. The map will lead players to the fusion core at the heart of the station, where the fusion cubes are stored. There will be smaller monsters players will have to evade or kill to reach the fusion core.

Once at the core, they will have to use a core removal device--which is like a large grappling hook--to remove a fusion core from the core block, which is a large recessed section in the floor where 400 cubes are located in a 20x20 grid. Each cube is .5 meters on a side. Once removed from the core, the cube can be added to a player's inventory.

Using the Fusion Cube at the Terminus Center

The Terminus Center is a massive open air building with dozens of wormhole gates lining the interior in a massive ring. The gates face outward from a central pillar which provided energy to the complex before the



city was blasted into this dimension. Now the Terminus Center is dark, with only emergency lighting flickering in the vast space.

Players will have to avoid monsters here as well as they attempt to power a wormhole gate. When they enter the Terminus Center they will receive the following message in their HUD:

You have entered the Terminus Center. Use the fusion cube to power a wormhole gate to return to your dimension. The fusion cube must be inserted in the power pillar at the center of the wormhole gate ring. Once inserted, the fusion cube will power up several gates. Enter MEMORY-FIDELITY-ROGUE into the command console to open the gate, at which point you may pass through.

When players steps through the wormhole gate, they are returned to their base.



APPENDIX AQbots Design Guide

Some of the key elements of the look and feel of the game are:

Proportions and Design:

- Character designs will have a wide range of proportions. Some variants will be realistically proportioned to appeal to players as a relatable design, while others may range in proportions depending on the design and visual aesthetic of the variant. Designs may range from humanoid to hulking to create a wide array of choices for players.
- Environment assets will be realistically proportioned and treated as close to real as
 possible during the design phase and modeling phases. Trees, rocks, plants, etc., should
 all function and look as one might expect them to look and function (i.e., a tree trunk
 should not be super thin at the bottom and large at the top)
- "Man-Made" structures will follow the same design goals as the Qbot variants, functioning as realistically as possible, but sacrificing function for design aesthetics if needed.
- Weapons and vehicles will also follow the Qbot design aesthetics (they should look and function as realistically as possible, although that may be sacrificed for design aesthetics).
- Assets will be designed in groups so that each specific group has a unique, strong and easily identifiable silhouette. This will help players identify specific Qbot variants, locations in the world, and resources more easily

Material Rendering:

Obots will be using PBR (physically based rendering) for its materials. Materials will be based off of real world values to achieve distinct definitions, and aid in creating an easy to identify visual values for items in the world. However instead of trying to achieve realistic or hyper-realistic shading, we will be using a gradient-based shading and using solid, saturated colors detailed with Normal and AO details and gradient color changes. Many assets will be able to be color swapped using Gradient mapping palette swaps without the need for a large amount of extra textures to be generated by the artists.

Colors and Textures

- Currently textures for Gradient map based assets include: [Note: this list may expand as needed]
 - The Color Ramp (256x16 texture that contains gradient color information) [This is part of the Base color/albedo map]
 - The Gradient ID Map (grey scale map that contains information about where gradient colors will be applied on the model. If the model has an emissive sections, Emissive information will be listed in the alpha channel of this texture map) [this is part of the base color/albedo map]
 - The Gradient Detail map (map that contains secondary gradient information/decals, so that
 we can add extra details/markings easily) [this is part of the base color/albedo map]
 [Note: this map currently only hold gradient-based color information and is not affected by
 roughness/metalness]



- Normal map (standard normal map. Generally will be a tangent space or object space normal map).
- Metallic/Roughness map (Map containing both the roughness value and the metallic value.
 Metallic value is stored in the Red channel of the image and the roughness is stored in the Alpha Channel. image will generally be a 32-bit targa to accommodate the split channels)
- AO Map (Map with the Ambient occlusion data for the asset. Is used to generate diffuse AO information currently)

• Currently Textures for Non-Gradient Mapped assets include:

- Albedo Map (Map containing the color information for the asset)
- Normal map (standard normal map. Generally will be a tangent space or object space normal map.)
- Metallic/Roughness map (Map containing both the roughness value and the metallic value.
 Metallic value is stored in the Red channel of the image and the roughness is stored in the Alpha Channel. image will generally be a 32-bit targa to accommodate the split channels)
- AO Map (Map with the Ambient occlusion data for the asset. Is used to generate diffuse AO information currently)
- Animations will be roughly realistic and vary depending on the animating asset. Over emphasized animations or highly exaggerated animations may also be used depending on stylistic choices
- Visual Effects will be a loose mix of realistic (bullets, tracers, explosions, etc) and stylized effects (Tech effects, Transport beams, Status effects, etc)

Assets will need to as optimized as possible until a performance baseline is established. This will need to be dealt with on a piece by piece process until the baseline is established

Steam

Qbots will be sold exclusively through Steam to begin. Other delivery channels may be added if opportunities arise.

Merchandising

If Qbots proves successful enough, Qbots LLC will explore other revenue channels such as:

- Licensing designs for models and toys
- T-shirts
- Golf shirts
- Sweatshirts
- Hoodies
- Coffee mugs
- Media
- Other as opportunities arise



APPENDIX B

Historical Background and Planetary Details

NOTE: The following is background detail for the design team to use to maintain consistency. This is not information that players will see or need for gameplay.

Qbots takes place on an alien world called Vonon. It is a Qbot colony world that was abandoned thirteen hundred years before the events of the game. There is a wormhole gate in orbit around Vonon but it has been dormant since the Great Collapse when the colony destroyed itself in a massive war.

Vonon was colonized during what later came to be known as the First Migration, when the Qbot civilization had advanced enough to develop wormhole gate technology and expand beyond the Qbis homeworld.

Self-replicating probes were launched at near light-speed to local star systems, where they began to disassemble local materials (moons, asteroids, comets) in order to create a wormhole gate with a path back to the Qbis homeworld. The first probes also manufactured additional self-replicating probes that were immediately launched toward more distant star systems to expand the wormhole network.

The Vonon system was one of the most remote star systems settled in the First Migration. The Qbots who built the colonial civilization there had little contact with Qbis. After a few centuries, ships from Qbis no longer arrived. The outpost was ignored as other colonies proved to be more valuable both strategically and as a source of materials. Vonon remained on the Master Gate Index but was listed as ABANDONED and later forgotten.

When first settled, the Vonon civilization grew rapidly and splintered into four distinct factions with their own unique technologies and traits. These civilizations were:

- Floren The largest civilization and most technologically advanced. They are the ones who built Lithea, the megacity that later becomes the Haunted City of the game. Their technology is very sleek, streamlined, and elegant.
 - a. Much of their work is colored in metallic silvers, grays, and black.
 - b. Their general look is sleek and futuristic, like what we think of when we think of "THE FUTURE."
- Centos Second largest group. They are the ones who built the Pyramids, which were self-contained
 cities where they experimented with creating Qbot-organic hybrids using parts from the native animal
 populations. This is where the Frankenbots come from. Their technology reflects a combination of
 organic and inorganic materials.
 - a. Their colors are largely earthy tones accented with white and purple.
- 3. **Kaetenese** Third largest group. They built large underground bases and a vast network of tunnels and bullet-train transport tubes connecting their cities and outposts.
 - a. Their technology uses lots of bright yellows, oranges, and blues.
 - b. The ruins of these bases still exist and can be mined for materials by current Qbots players. Transport tubes exist but no longer operate but can be explored.
- 4. **Penar** Fourth largest group. They lived on an archipelago in the southern sea and built fortress-like



structures of glass, steel, and forcefields. They were nearly as advanced as the Floren but were secretive and did not want contact with the other Qbot factions.

- a. Their buildings reflect a defensive and military mindset. Thick, overbuilt, embedded with lots of weaponry.
- b. Colors are various shades of gray, black, and a intelligent camouflage that adapted to the local environment.

Thirteen hundred years after Planetfall, a Penar geological team discovered a fragment of what they believed was the Engineers' Frequency, which ancient Qbot texts said could open a wormhole gate to the Engineers' homeworld. The Engineers were a legendary race of organic beings who were believed to have created the Qbot civilization in the remote past. It has long been a goal of many Qbot religions to find and reunite with their makers.

This discovery led to an escalation in tensions between the Qbot factions on Vonon. Each faction wanted to find the remaining encrypted fragments of the Engineers' Frequency and be the first to find the Engineers.

These tensions escalated into a planetary war that destroyed the Vonon civilization. The city of Lithea was bombarded with experimental weaponry designed to draw additional energy from a parallel universe; but instead of destroying the city, the energy released and inter-dimensional shockwave translated the city to another dimension that can still be accessed when there are random errors when using the existing planetary wormhole gate network.