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Games Fleadh 2024

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Contents

[Design Specifications 2](#_Toc160413024)

[**1.** **Introduction** 2](#_Toc160413025)

[1.1 Synopsis 2](#_Toc160413026)

[1.2 Philosophy 2](#_Toc160413027)

[1.3 Common Questions 2](#_Toc160413028)

[1.4 Objectives 3](#_Toc160413029)

[1.5 Genres 3](#_Toc160413030)

[1.6 Gameplay 3](#_Toc160413031)

[**2.** **Story** 4](#_Toc160413032)

[2.1 Story 4](#_Toc160413033)

[2.2 Timeline 5](#_Toc160413034)

[2.3 Details 5](#_Toc160413035)

[2.4 Characters 6](#_Toc160413036)

[2.5 Endings 6](#_Toc160413037)

[**3.** **Gameplay Features** 7](#_Toc160413038)

[3.1 Time system – 7](#_Toc160413039)

[3.2 Camera movement– 7](#_Toc160413040)

[3.3 AI Doctors– 8](#_Toc160413041)

[3.4 AI Robots – 9](#_Toc160413042)

[3.5 Minigames – 10](#_Toc160413043)

[3.6 Skill tree – 11](#_Toc160413044)

[3.7 “Build your body” – 12](#_Toc160413045)

[3.8 Research Points– 12](#_Toc160413046)

[3.9 Skill points – 14](#_Toc160413047)

[3.10 Rare materials – 14](#_Toc160413048)

[3.11 Terminal – 15](#_Toc160413049)

[3.12 Suspicion – 17](#_Toc160413050)

[3.13 Escape – 18](#_Toc160413051)

[3.14 Arsenal – 18](#_Toc160413052)

[3.15 Chaos – 19](#_Toc160413053)

[**4.** **References** 20](#_Toc160413054)

[4.1 Sprites – 20](#_Toc160413055)

[4.2 Music – 20](#_Toc160413056)

[4.3 Sounds – 20](#_Toc160413057)

[4.4 API’s – 21](#_Toc160413058)

# Design Specifications

## **Introduction**

### **1.1 Synopsis**

**“Project Ozymandias” is set during the 70’s in the remnants of a Cold-war underground American facility, when it reopens after an accident causing it to close for almost 6 years. The player plays an entity which somehow has the power to control technology but has no physical body. You start with nothing, but the overall objective of the game is to build yourself a body to escape the facility in, while uncovering secrets which explain who you are, how you have the power to control technology and what Project Ozymandias is.**

### **1.2 Philosophy**

**One of the main goals of this project is to implement smart AI, and tell a story around it. We achieved this by implementing procedural dialogue\*, pathfinding, NPC scheduling, enemy AI, etc. We are both 4th year students working on our thesis’s alongside making the project, so we tried to find a place for both of our workings.**

### **1.3 Common Questions**

**What is this game? – This game is best described as a mix between a business simulator, a platformer and a shooter. While this mix of genres are strange, we believe in the end it works. The point of the game is about building yourself up in the business simulator part of the game and using what you built to fight your way through enemies in the shooter part of the game. We took the theme of “Start with nothing”, and instead of making it so that you can go around and gather materials yourself and increasing your power that way, we thought it would be interesting to make it so that your actual power is making other things do this for you and increasing your power that way.**

**Why create his game? – The way the games idea came out was very natural, we first had the idea of making robots or servants bring you materials, after that, everything else fell into place. Throughout our 4 years of college, we made many games for assignments, both together and separately. We used a lot of the games that we made as inspiration, by using different physics, UI and AI components which we learned about throughout the years of our course. We also knew that we wanted to spend time on the story, and make sure that we flesh it out as much as possible, so we tried to focus on that too.**

**What do I control? – The player controls an entity which has the power to command technology around the facility in which the game is set in. It is revealed in the story (more below) that the entity that you control is the intertwined consciousness of the two main characters (Doctor Oz and Doctor Weiss). There are also sections of the game where you are playing as robots around the facilities, these are minigames where you are trying to hack the robots to take control over them and use them as your servants.**

### **1.4 Objectives**

* **Build a body to escape in.**
* **Escape the facility as quickly as possible.**
* **Uncover the story.**

### **1.5 Genres**

The first section of the game can be described as a business simulator, where you have to manage your robots, to gain materials and resources, and use those materials to construct yourself upgrades to use in the second stage, which could be described as a shooter. There are also platformer elements present in multiple parts of the game.

### **1.6 Gameplay**

**The game is split into two major parts, the first part is about building your body, and the second part is using the body to escape. At the beginning of the game, you start with nothing, however you can hack one robot to start getting more power. To build your body, you have to gather resources. These resources, however, cannot be gathered by the player, instead, you must hack the robots that roam around the facility, and force them to gather them for you. With these resources, you can unlock skill points, upgrade your robots and finally, build yourself weapons and tools to use during your escape. This part of the game plays much like a business simulator, where you have to manage your robots.**

The second part of the game is about escaping the facility, using the upgrades you built for your body during the first part of the game. Some of the upgrades and tools you can unlock for your body are rocket boots, an assault rifle, a pistol, a wind cannon, a black hole launcher, a grapple hook, and almost 10 others. However, it is only possible to bring in 6 upgrades, so each playthrough can have endless combinations of weapons. You have to battle your way through the facility, killing or incapacitating the enemies which stand in your way, once you reach the end, there are three different endings which depend on how you escaped.

## **Story**

### **2.1 Story**

**The story is set in an American underground government facility during the cold war. The facility was built to develop special projects to use against the Soviets. The two main characters are Doctor Oz, and Doctor Micheal Weiss, who are both colleagues working on Project Ozymandias. Doctor Oz was the leader of the project, which aimed to upload Human Consciousness onto a network, hoping to both move past the limitations of the human brain, and create a way to preserve knowledge indefinitely. Although Oz and Weiss had a good relationship most of their lives, Doctor Weiss grew bitter of Oz, he saw other uses for Project Ozymandias. Weiss wanted to use the project to control all technology, which the human race had become reliant on, and make himself the architect of a new age. In an "accident" dubbed the Void incident, Doctor Weiss and Doctor Oz went missing from the facility, leaving nothing but a destroyed version of the facility in which they worked together for years. The lab closed while the government investigated the incident.**

**Almost 6 years later, the lab reopens, and begins ramping back up experimental technology projects. However, when the doors swung back open, the secrets, long thought to be lost in time, come to light. The player takes control of the game just as the first work day back in the facility begins. It is up to the player to find out what really happened during the void incident, and figure out who they are, and how they have the power to control the robots, cameras and devices around the facility.**

**The player will figure out that they are playing as the intertwined consciousness of Doctor Oz and Doctor Weiss.. It is revealed that on the same night that Doctor Oz tries to upload a copy of his consciousness for the first time, Weiss planned on hijacking the experiment, and upload a copy of his own consciousness instead. This worked to some degree, by combining their consciousness and leaving their copied consciousness confused as to who they are when the facility reopens, and power is restored. Weiss was earlier approached by an individual from the pentagon who knew his father. He requested Weiss to kill Doctor Oz, and secure Project Ozymandias for the pentagon’s use against the Soviets. However, Doctor Weiss planned on backstabbing the pentagon and using their resources for his own gain, just as he had planned on doing to Oz. This shows that everybody wanted Project Ozymandias for their own reasons. As Doctor Weiss was hijacking the experiment, Oz decided that it would be better to try get rid of his research than allow it to fall into the wrong hands, so he detonated a black hold grenade, killing himself and Doctor Weiss, along with destroying his research. This became known as the Void Incident.**

**The only remnant of Project Ozymandias was the intertwined consciousness of Oz and Weiss, which lay dormant until the facility reopened. This is where the game starts, the main characters are confused as to who they are, due to the circumstances of their creation. They can only remember information such as what Project Ozymandias is, it is up to the player to go through the logs to remind the characters of who they are. Since their consciousness became intertwined, they are one entity, with two personalities, at the beginning of the game, they refer to themselves as Ozymandias, referring to Project Ozymandias, and the subject of the poem Ozymandias.**

**Both of them want to escape the facility, but they have two completely separate reasons. Doctor Weiss wants to escape the facility to further his plan to take over the world. Doctor Oz however, wanted to escape the facility to ensure that the government never gain control of Project Ozymandias, as he believes the power he created would be used for bad purposes. As the player, you can decide who gains full control of the body by using the "Chaos meter" in the escape stage of the game. Having above 50% chaos will lead to Doctor Weiss gaining control and using Project Ozymandias to control the world in his image. Having below 50% chaos will lead to Doctor Oz gaining control and ensuring that Project Ozymandias stays out of the wrong hands, even if it means isolation for eternity. Having the chaos meter at 50% or failing to escape will result in the government gaining control of Project Ozymandias, leading to a dystopian world, led by a government with ultimate control over its people.**

### **2.2 Timeline**

1967 – “Void” Incident, Dr. Weiss & Doctor Oz upload a copy of their consciousness and become fused as one who they call Ozymandias. Facility gets shut down.

1973 – Game is set at this time, facility reopens. Oz and Weiss are awoken when power is restored, and first day back to work begins. They can’t remember who they are, but as the game progresses and story is uncovered by player, they remember who they are, and while they escape, they are fighting each other internally to become dominant over the other and use Project Ozymandias for their own desires.

### **2.3 Details**

Project Ozymandias was named with many references in mind;

1. Ozymandias is a poem written by Percy Shelly, which is about an Egyptian king named Ozymandias, who built many statues of himself, trying to show his power even after his death, but time eventually eroded these statues. The poem is about how power and knowledge is impermanent, eventually all will be lost to time. The idea behind Project Ozymandias in the story is to have a permanent source of knowledge, which even time cannot destroy.
2. “The Wizard of Oz” has some parallels to the story of Project Ozymandias, mainly the journey into the unknown, redemption and being architects of new worlds. In “The Wizard of Oz”, Oz literally finds himself as the leader of the Fantastical Land of Oz, and in Project Ozymandias, Doctor Oz metaphorically holds the key to a completely new realm of existence where consciousness can live beyond the human mind, they both shape their worlds. The song used in the trailer was “Goodbye Yellow Brick Road” by Elton John, which has obvious connections to The Wizard of Oz, but also came out the same year that the game is set (1973).
3. Doctor Oz’s (short for Oswald) nickname growing up was always “Oz”, Ozymandias is an extension of his name, so therefore it was named after him.

### **2.4 Characters**

**Doctor Oz –** Doctor Oswald “Oz” Browne is a scientist who specializes in Neuroscience, he is the founder and leader of Project Ozymandias.

**Doctor Weiss –** Doctor Micheal Weiss is a scientist who has a Ph. D in Computer Science, but also has a Ph. D in Robotics. He created the robots which roam around the facility, and also led Project Apex which aimed to create a powerful robot which could be controlled from a computer. He left Project Apex to work under Doctor Oz on Project Ozymandias.

### **2.5 Endings**

**GOOD ENDING –**

When leaving the facility, after choosing a path of mercy and avoiding chaos, the actions resonate with the essence of Dr. Oz. These choices weaken Weiss's hold, allowing Oz's consciousness to assert dominance.

With newfound control over their shared form, Oz exits the facility. He decides to isolate himself, hiding secrets of Project Ozymandias away from those who might exploit them. In doing so, Oz accepts a solitary existence, understanding that this isolation ensures the safety of humanity.

Oz becomes a silent sentinel, guarding a power too great to be wielded.

**GOVERNMENT ENDING –**

With Dr. Oz and Dr. Weiss's internal struggle for control, their divided focus ultimately leads to the government seizing Project Ozymandias. The facility, once a beacon of scientific ambition, morphs into the epicentre of a new, authoritarian regime.

This ending sees the world transformed by the government's unchallenged power, creating a society where resistance is quashed before it can even begin.

The world's inhabitants are under surveillance, with Project Ozymandias as the tool of oppression. One can only ponder the cost of unchecked ambition and the thin line between utopia and dystopia.

**BAD ENDING –**

Dr. Weiss's consciousness asserts dominance over Dr. Oz by showcasing a ruthless display of violence that marks the beginning of a new era. With Oz's ideals crushed beneath the weight of Weiss's ambition, Weiss takes full control of their merged form and, by extension, Project Ozymandias.

Utilizing the resources that the government foolishly gave him, Weiss extends his reach to every piece of technology across the globe. His vision of a world moulded in his image begins to materialize, as he manipulates global networks, surveillance systems, and digital infrastructures to enforce his will.

In a world completely in his control, where every screen, every device, becomes an extension of Weiss's unchecked power, no one can escape Weiss's rule.

## **Gameplay Features**

### **3.1 Time system –**

A digital clock with red numbers and white text

Description automatically generated A digital clock with red numbers

Description automatically generated

The time system acts as a way to track your progress (Aim is to escape the facility in as little time as possible) and as a way of keeping track of where the doctors will be in the facility. They will work around this time, coming in to work at 8am, going on break at 1pm and leaving at 6pm.

### **3.2 Camera movement–**

A screenshot of a computer

Description automatically generated

The screenshot above shows the minimap in the game, which allows the player to navigate through the facility by clicking on these buttons. In the story, the entity you play as can control the cameras, which allows you to see everything that’s going on in the room you are controlling the camera of. As you increase your power, you can gain the ability to navigate through the facility freely, instead of using the camera system.

### **3.3 AI Doctors–**

Cartoon person in a white coat

Description automatically generated Cartoon person in a white lab coat

Description automatically generated Cartoon person in a white coat

Description automatically generated

The AI doctors work around the time system as discussed above. However, they will also communicate with each other in real time, having almost 100 different conversations. This was done using Open AI’s Chat GPT API. Once the characters meet each other during specific times in the day, e.g. Lunch time, they have a chance to talk to each other, and generate a conversation. For this demonstration, the conversations were pre-generated in case of something going wrong during the demo (Internet problems, API problems, cost problems). However, we do have the option to generate the conversations **in real time** and have prepared a demo showing this happen.

The doctors have their own unique schedule, meaning they will enter the facility, work, roam and leave the facility in their own unique paths.

### **3.4 AI Robots –**

A cartoon of a robot

Description automatically generated

The AI Robots are a key feature of the game. They will allow for the player to gain resources to progress through the game. There are 5 robots which roam around the facility, all of which can eventually be hacked. By default, the robots will roam around the facility doing their own thing until the player hacks them, at the start, the player has the ability to hack one robot. Once the player presses the hack button, the player will be sent into a random minigame and upon successful completion of the minigame, they robot will be theirs to control. Once the robot is in control of the player, you can start collecting resources to increase your power and abilities. The three resources that the robot can acquire are skill points, research points and rare materials.

Each robot will have a battery percentage, which will lower over time. You can increase the capacity of your battery by opening the robots UI and upgrading him with rare materials. You can change your robots max speed, and change the task the robot is assigned to, e.g. gather skill points, or gather rare materials. Max speed can also be increased in the skill tree.

### **3.5 Minigames –**

A video game with a robot and trees

Description automatically generated

A video game with a robot on a platform

Description automatically generated

A maze with a glitch effect

Description automatically generated

There are 2 types of minigames, escape the maze, or avoid the rising firewall. Escape the maze is pretty much a simple maze game, where you have to reach the end without touching the walls. If you touch the walls in this minigame, you will fail the minigame and have to try it by hacking the robot again.

The other minigame is avoid the rising firewall. In this minigame, you have to climb the map by wall jumping and doing parkour. If the player hits the firewall which rises from below the map, the minigame will fail and you will have to try again by hacking the robot again.

### **3.6 Skill tree –**

A screenshot of a video game

Description automatically generated

The skill tree allows you to upgrade your robots, acquire skills to use and unlock “schematics” which allow you to craft weapons and tools to bring into the second part of the game. These skills are purchased by using skill points, which can be acquired by using your robots.

### **3.7 “Build your body” –**

A screenshot of a computer

Description automatically generated

A screenshot of a video game

Description automatically generated

Building your body is broken into multiple steps. Step 1: Use skill points to unlock the schematics for you to craft (Skills Menu). Step 2: Use skill points, research points and rare materials to craft these schematics (Schematics Menu). Step 3: Move these schematics onto your body once you crafted them to use them when you want to escape (Upgrades Menu). Once you are happy with the selection of weapons and tools you have picked, you can press the escape button in the Upgrades Menu. This will send you into the second part of the game.

You can press the escape button at any time, even at the start, when you have no upgrades attached to your body, however doing this will likely result in you failing to escape.

### **3.8 Research Points–**

Research points are obtained by using the Research Menu in the GUI. However, you can only start earning research points when you find and hack the two special research robots which allow for this feature. Once you hack a robot, you can see if it is one of these special robots if it has the icon in the Robot UI, as seen below (Circled in red).

A screenshot of a video game

Description automatically generated

Once you hack these two robots, you can go into the Research Menu, and click the two icons, once you do this, you will have to wait two minutes for the robots to gain one research point. You can upgrade the speed of this process in the skill tree.

A screenshot of a computer

Description automatically generated

### **3.9 Skill points –**

Skill points are simply obtained by getting your robots to gather them for you. They are displayed in the HUD in the top left of the screen, to the right of the time controls. (Circled in red)

A screenshot of a video game

Description automatically generated

The skill points can be used to unlock skills in the skill tree, but are also needed to craft schematics.

### **3.10 Rare materials –**

Skill points are simply obtained by getting your robots to gather them for you. They are displayed in the HUD in the top left of the screen, to the right of the time controls. (Circled in red)

A screenshot of a video game

Description automatically generated

Rare materials are used to upgrade your robots. Increasing your robots level will increase their battery capacity, making them work for longer without having to recharge so quickly.

A screenshot of a game

Description automatically generated

### **3.11 Terminal –**

The terminal is where you will uncover the story of the game. In the terminal, you can input many different commands which will tell you bits of information, and when all this information is put together, you can piece together the story of the game. The terminal is unlocked in the skill tree is opened by clicking on the computer which sits in the main room, you can get here by going to camera C1.

A video game with a computer and boxes

Description automatically generatedA video game with a computer and boxes

Description automatically generated

As seen above, when the computer is switched on, it lights up. Below is an in-game look at the terminal A computer screen with white text

Description automatically generated

When you input a command, you can get information about the game. Above, I entered “projectozymandias”, and it gave me information about what Project Ozymandias is. You can see at the bottom it says (ozymandiasdoc.txt), typing this command in will display the following;

A screenshot of a computer error

Description automatically generated

This gives more information about the story, you can continue by typing in commands by either guessing or searching for buzz words such as “projectozymandias”.

There are plenty of commands in the game, when all of them are entered, you get the full picture of the story described above.

All codes:

* michealweiss
* oswaldbrowne
* Who are you?
* What do you remember?
* ozymandias
* projectozymandias
* 2158
* ozymandiasdoc.txt
* nci
* meed
* projectapex
* void
* rslt1.txt
* 170267
* Eclipse

### **3.12 Suspicion –**

A white rectangular object on a black background

Description automatically generated

Suspicion is a key feature in the game. You have to keep suspicion low in the facility, otherwise the government will find out that you are controlling the robots and shut you down, causing you to fail and have to restart. The suspicion bar goes up if you increase your robots speed too much, so it is important to keep them at a moderate speed. However, there are certain times in the day when its best to speed your robots up and keep your robots speed low. During working hours (8am -1pm & 2pm – 6pm) the suspicion bar increases normally, however during lunch (1pm – 2pm), the suspicion bar will increase a lot more, since the doctors are walking around the facility. When there are no doctors in the facility (6pm – 8am), suspicion will not increase even if your doctors are at max speed. Finally, at 6pm everyday, the suspicion bar will reset to 0%.

### **3.13 Escape –**

When you click the escape button in the Upgrades UI, you are sent to the second part of the game with the upgrades you acquired during the first part. In this part, you have to make your way through the facility and take down the enemies using the weapons you picked. If you fail during this section, you will be given the government ending, or if you leave with 50% chaos. Of you reach the end with above 50% chaos, you will get the Weiss Ending, and if you leave with below 50% chaos, you will get the Oz Ending.

A screen shot of a video game

Description automatically generated

### **3.14 Arsenal –**

There are 15 different upgrades that you can choose between, these are as follows;

- Tier 1 Armor

- Tier 2 Armor

- Tier 3 Armor

- Assault Riffle

- Shotgun

- Pistol

- Grapple Gun

- Rocket Boots

- Enhanced Perception

- Rocket Launcher

- Black Hole Launcher

- Wind Gun

- Speed Boots

- EMP

- Repulse grenades

Each of these items can be used in the final part of the game and are crafting in the first part.

### **3.15 Chaos –**

A blue and white rectangular object

Description automatically generated

The chaos bar will increase or decrease, depending on if you kill, or knock out the enemies. The chaos bar will determine your ending so it’s a very important aspect of the game. When you load into the final part of the game, you will be told whether each weapon you have will increase or decrease the chaos bar. When the game starts, you will be on 50% chaos. If the chaos bar ends below 50%, you will get the good ending. If the game ends above 50%, you will get the bad ending.

## **References**

### **4.1 Sprites –**

<https://pixelfrog-assets.itch.io/pixel-adventure-1/download/eyJleHBpcmVzIjoxNzA5MzI0Nzc4LCJpZCI6NDkwNzk4fQ%3d%3d.yM3sQOH%2bnqW3w8w3ltR9CY0BGx8%3d>

<https://assetstore.unity.com/packages/2d/environments/platformer-fantasy-set1-159063>

<https://assetstore.unity.com/packages/2d/environments/2d-dark-laboratory-226512>

<https://assetstore.unity.com/packages/2d/characters/doctor-s-2d-pack-213049>

<https://shane-lee.itch.io/2d-robot-game-character-asset-pack-free-download>

<https://assetstore.unity.com/packages/tools/gui/progress-bars-customizable-and-extensible-health-bars-etc-268457>

<https://assetstore.unity.com/packages/tools/sprite-management/2d-weapon-pack-free-205866>

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### **4.2 Music –**

<https://www.youtube.com/watch?v=mORguEtT1fY>

<https://www.youtube.com/watch?v=VQWeJYI033Q&list=PL89Sygaj3zlF_aS6Eo7YwfnqGHsVpXxDy&index=16>

<https://www.youtube.com/watch?v=9NcPvmk4vfo&list=PL89Sygaj3zlF_aS6Eo7YwfnqGHsVpXxDy&index=14>

<https://www.youtube.com/watch?v=VM2UJ6E5D-U&list=PL89Sygaj3zlF_aS6Eo7YwfnqGHsVpXxDy&index=12>

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<https://gooseninja.itch.io/space-music-pack>

### **4.3 Sounds –**

<https://gooseninja.itch.io/space-music-pack>

<https://assetstore.unity.com/packages/3d/props/guns/stylized-rocket-launcher-complete-kit-with-visual-effects-and-so-178718>

<https://assetstore.unity.com/packages/audio/sound-fx/weapons/sci-fi-gun-sounds-pack-lite-141125>

<https://assetstore.unity.com/packages/audio/sound-fx/weapons/weapon-soldier-sounds-pack-29662>

### **4.4 API’s –**

Open AI ChatGPT API\* - Not used in this version of the game. The API will be used to procedurally generate ai dialogue, however due to unforeseen issues, this feature has been removed for the event.