A ROGER SANCHEZ MARCH ASSIGNMENT 2

2020:

a space portal

WITH PORTAL 2 EDITOR

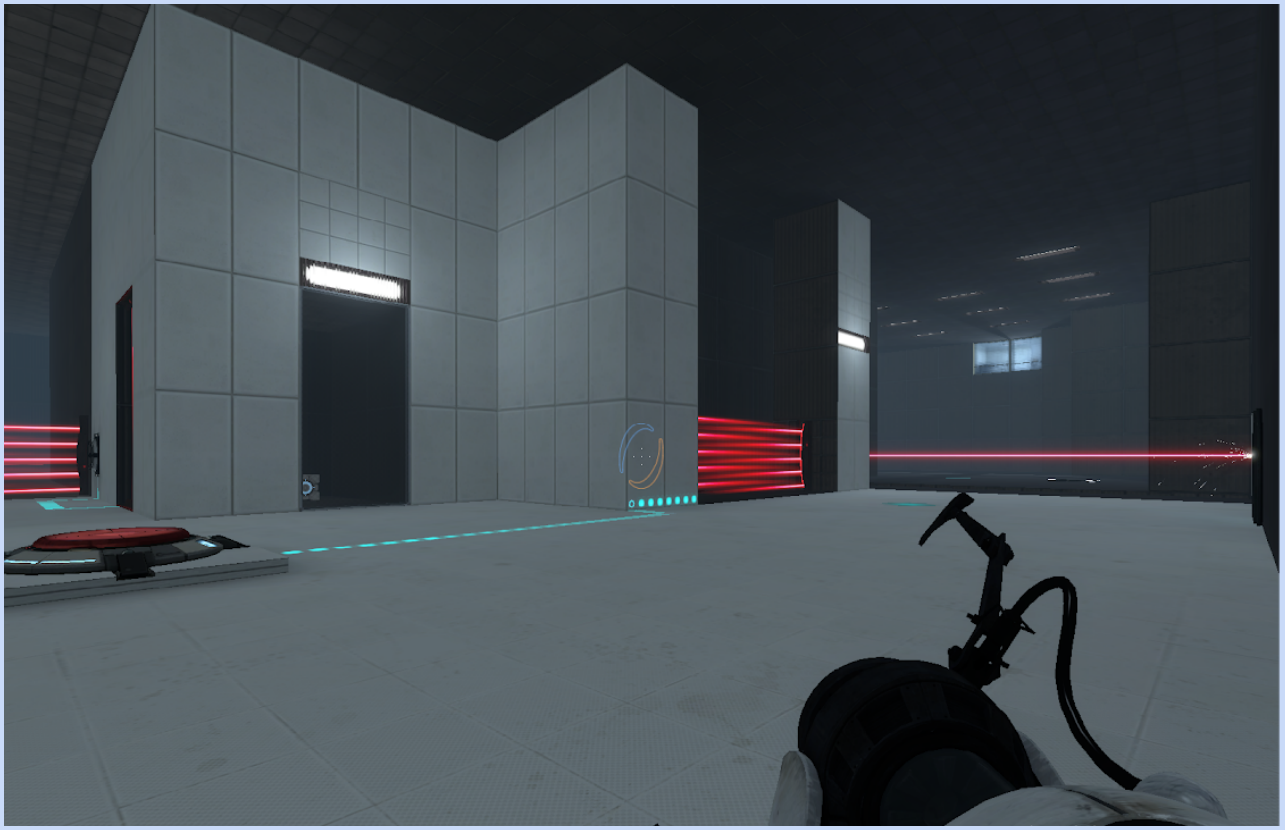
1. Introduction

2. Story and Character Arc
   2.1. Plot
   2.2. Characters
   2.3. Level Summary and References

3. Level Goals and Game Summary
   3.1. Intrinsic Goals
   3.2. Extrinsic Goals
   3.3. Soft Skills

4. Graphical Overview

5. Play My Rooms in Portal 2



1. Introduction

2020: A Space Portal is the name for this concept imagined videogame. It is a link between Valve's Portal series and **Arthur C. Clarke's** books **2001: A Space Odyssey** and **2010: Odyssey Two**.

Both books turned into movies, the first one adapted by **Stanley Kubrik** in 1968 and the second one adapted by **Peter Hyams** in 1984.

Portal was heavily inspired by the science fiction movies so both have very similar look. I have created a few levels using the **Portal 2 Editor** justifying it by imagining the alternative to the original plot explained bellow.

2. Story and Character Arc

2.1. Plot

We are after the events on 2010 (Odyssey 2), when the "**USS Discovery One**" was destroyed and with it the inner computer HAL 9000.

With the spaceship reduced to ashes, Bowman downloaded HAL's conscience into the monolith. So in a way, they are both phychically alive. Bowman, now turned into a Star Child, and HAL a now hardwareless AI.

When HAL awakes is blown away by all the new and limitless possibilities at his new circuits. He (or it) recreates a version of the Discovery so that both him and Bowman have somewhere to live in physically.

There, HAL creates endless number of rooms where he places challenges for Bowman so they can have fun.

All the events in this game happen in this mental recreation of the spaceship in outer space. Somewhere between **Io and Europa**, right next to a newborn star, **Jupiter**.

*"**Clarke's Third Law**: Any sufficiently advanced technology is indistinguishable from magic."*

2.2. Characters

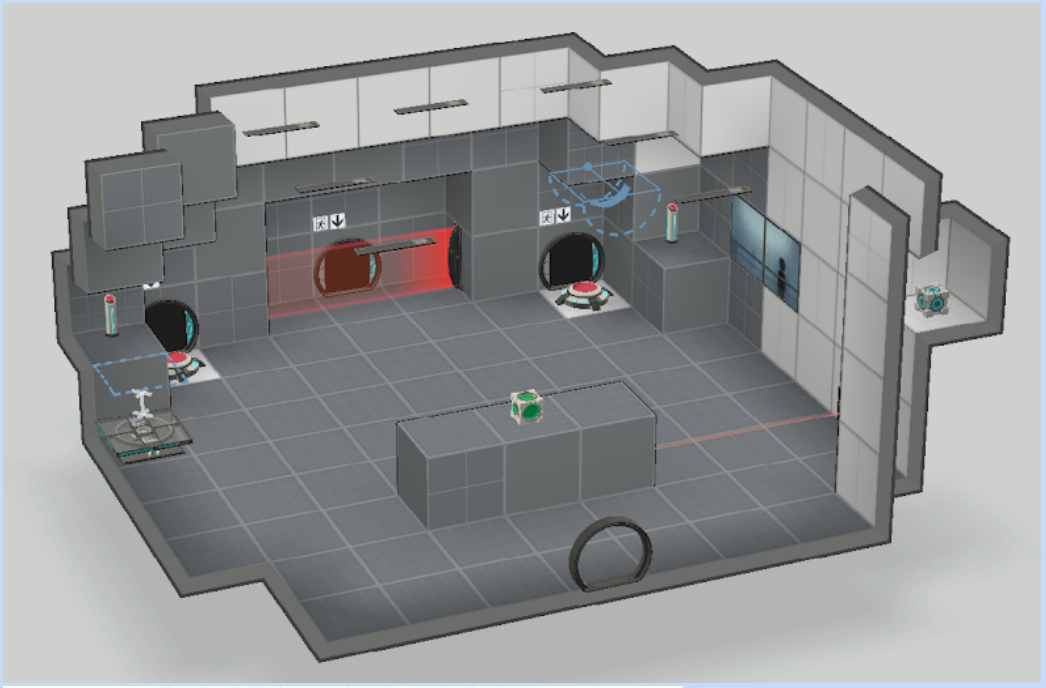
HAL 9000: The smartest AI ever built by humans so far, now coverted into the first hardwareless machine.

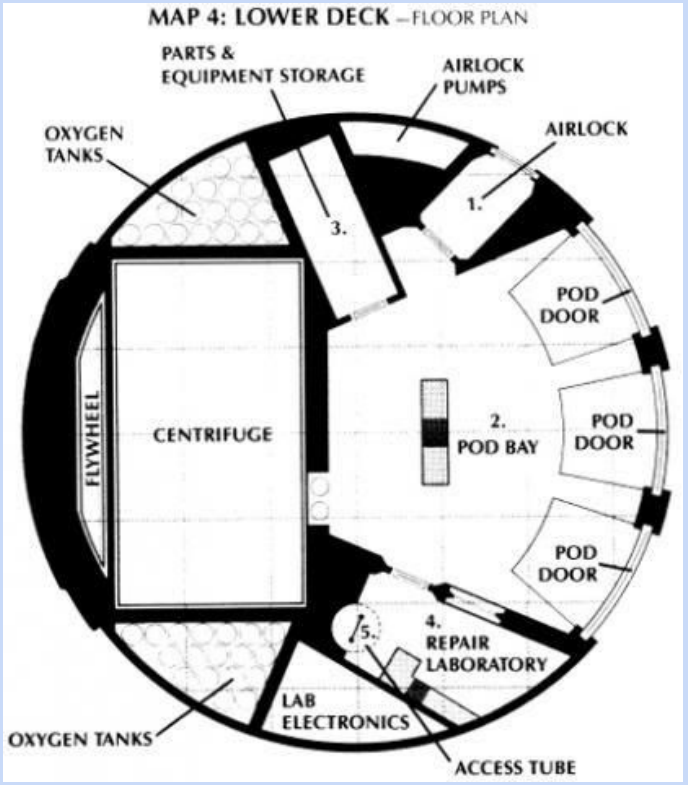
David Bowman: The once mission commander in the USS Discovery One in a secret mission to Jupiter is now a incorporeous man, known as Star Child.

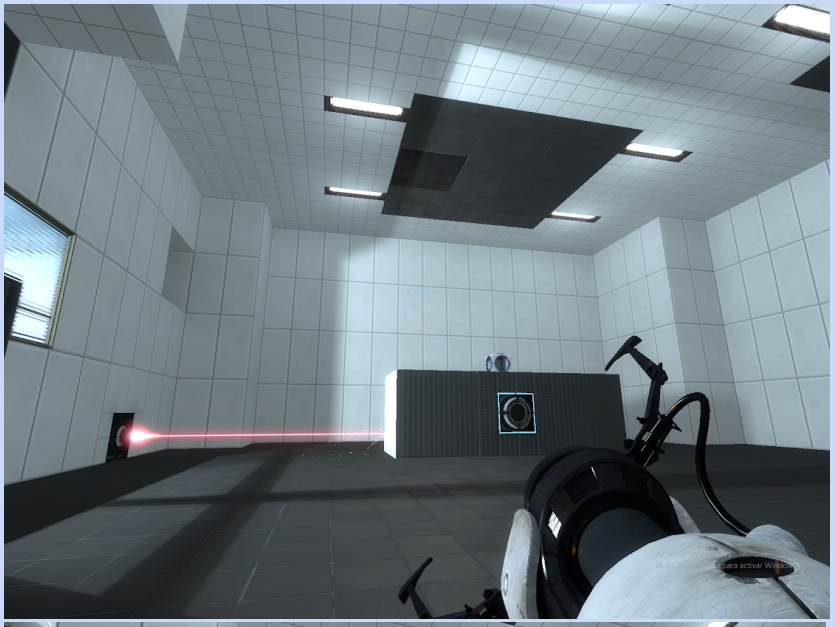
2.3. Structure, Level Summary and References

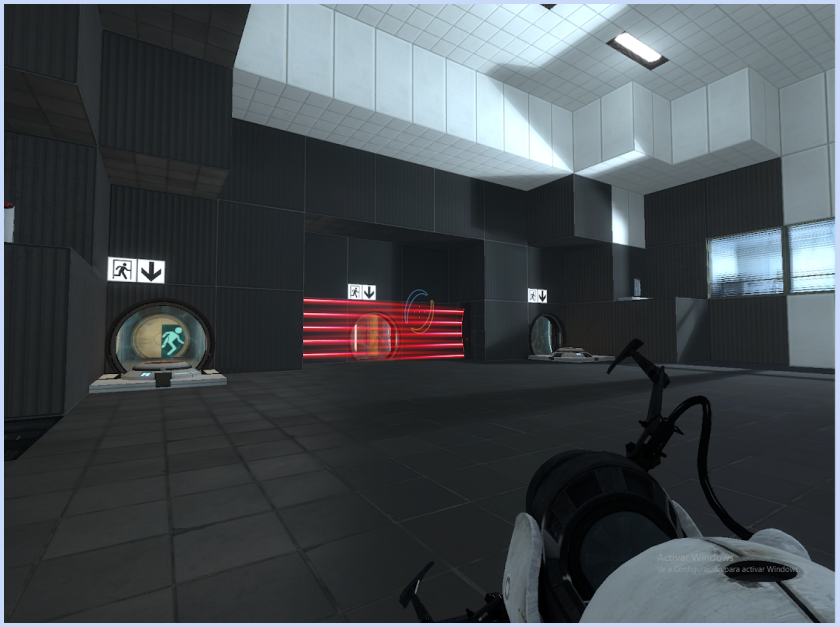
The rooms are independent one from the other. In the sense that what is done in one room or level, can't affect the others.
There is, still a progression. The first level the player should play is the Pod Bay. Then the Centrifuge and finnaly the as I called it, Discovery Tunel.

Room 1: Pod Bay









The Pod Bay Room has tree exit doors, one for each small spaceship or Pods. Only one of those is an actual exit for the room. The exit is protected by ray lasers that have to be desactivated. This is the clear objective of the room.

I only placed “Portalable” tiles either where those were needed or if those didn’t bother in the correct performance of the level.

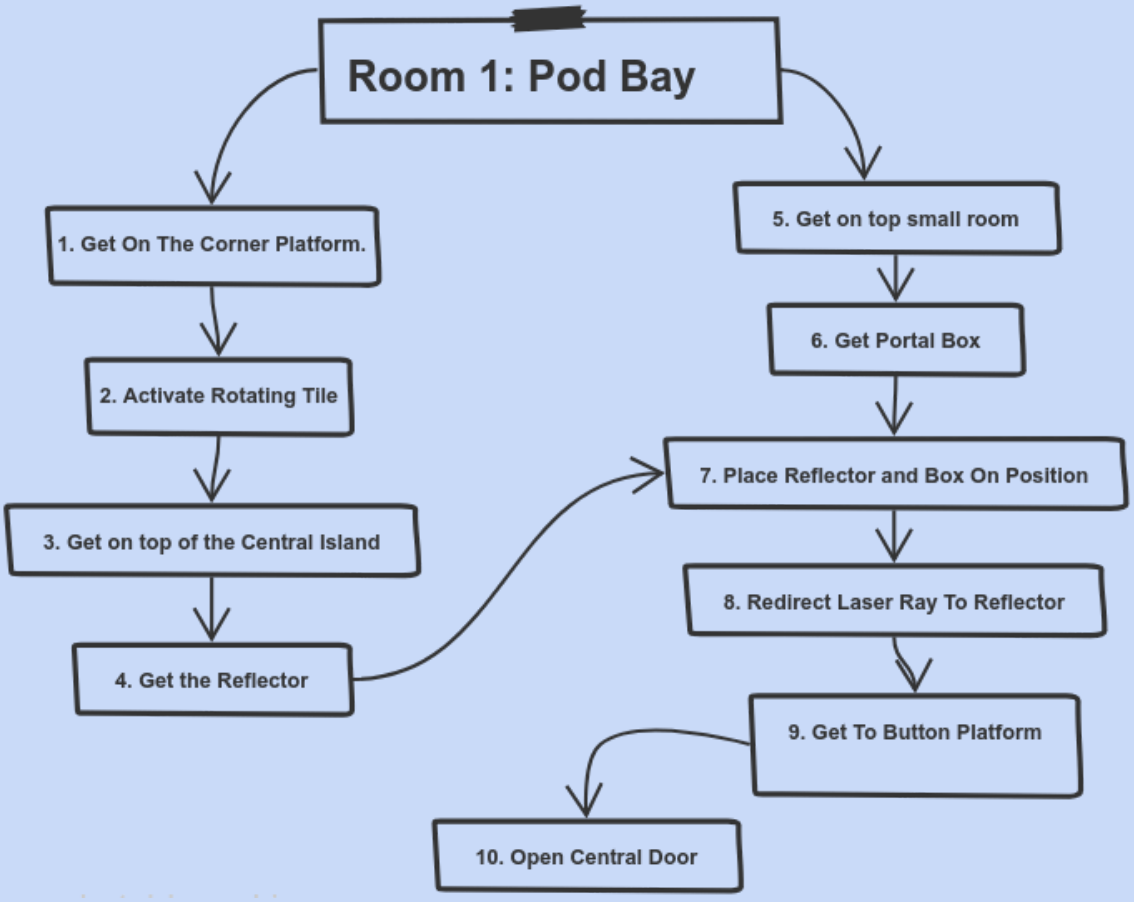
I tried to imitate the shape of the room in the movie though portal has squared tiles and the movie is rather spherical. The shape of the doors did fit perfectly as in the movie.

I placed a “Laser Receptor” where HAL eye should be as in the movie. Giving it a reason to be there, the laser is used to acces the button that desactivates the laser that protect the exit.

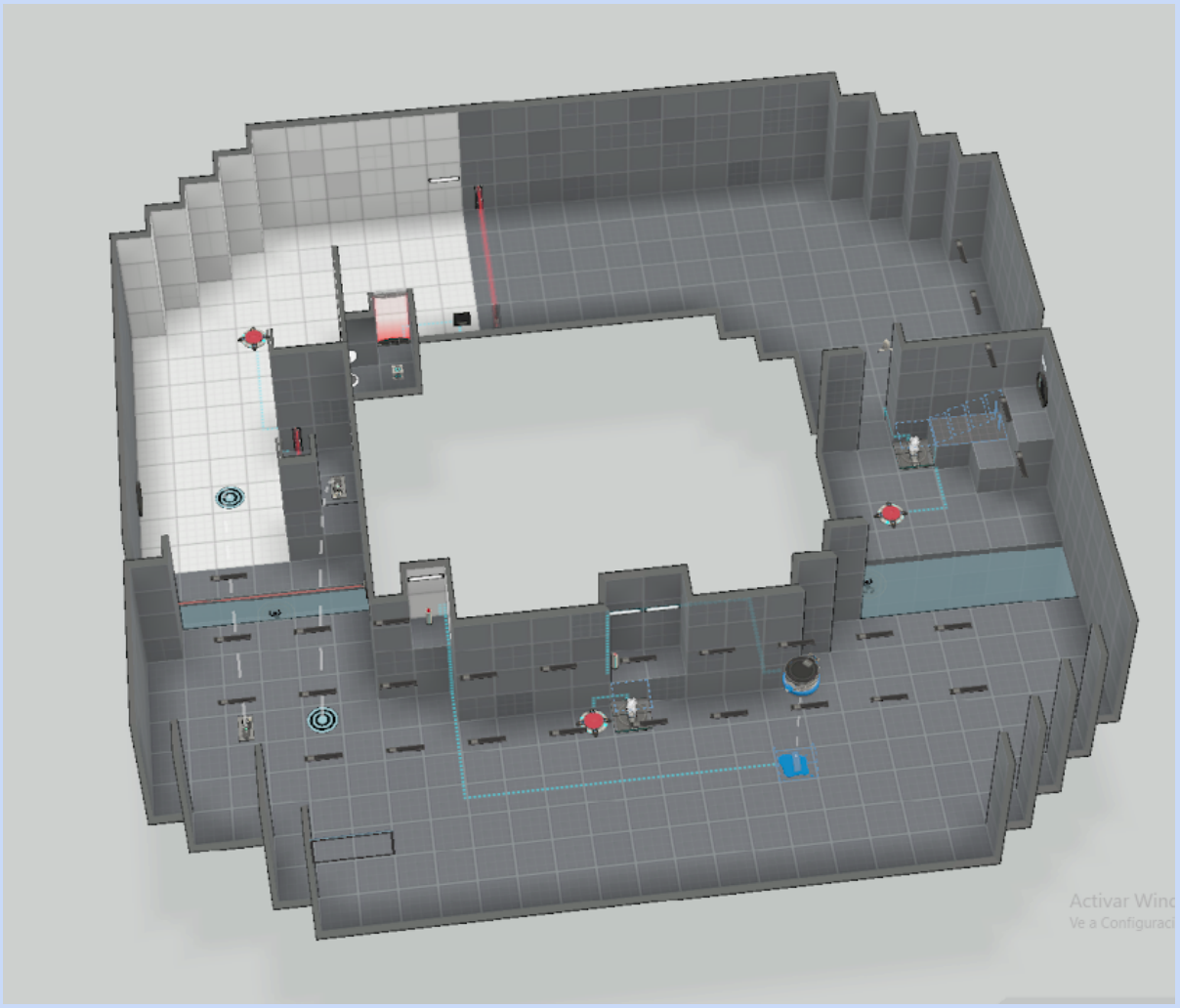
It is very important to playtest the level so that there are no easier ways to finish the level in which case, some items would be unused and the feeling that the level is not well done.

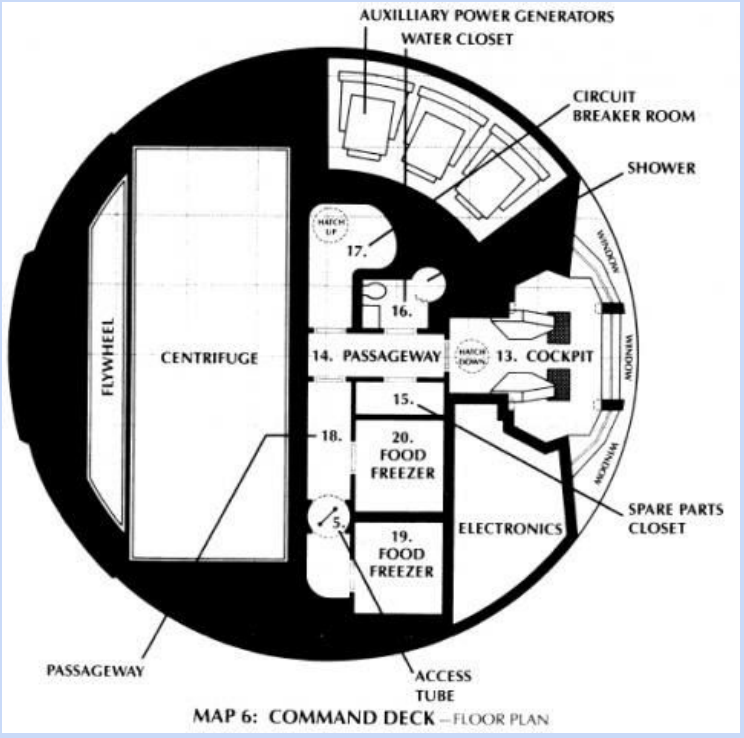
I placed a window where the “Repair Lavoratory” is in the Discovery. It has no funcional use but an asthetic one. I also placed lights on the ceiling that iluminate all the room equally, giving no special focus on any item.

Level FlowChart

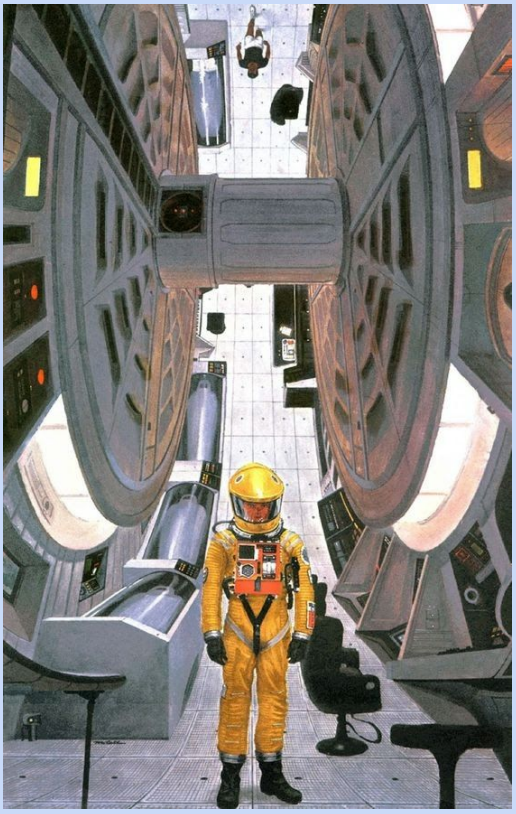


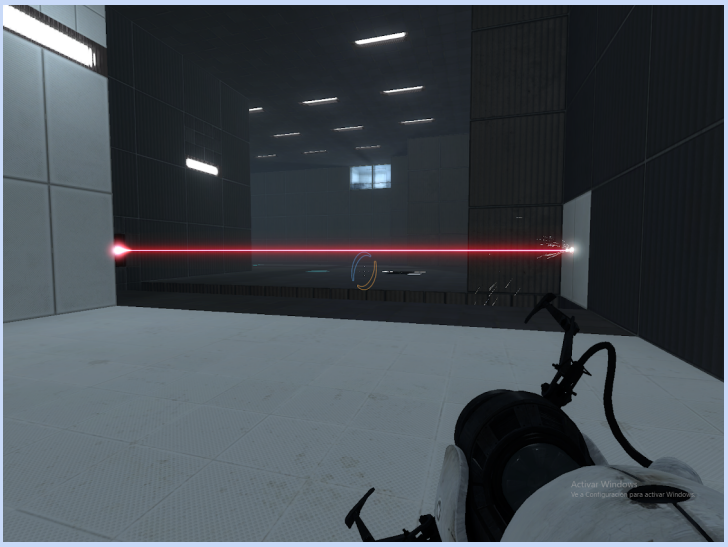
Room 2: Discovery's Centrifuge

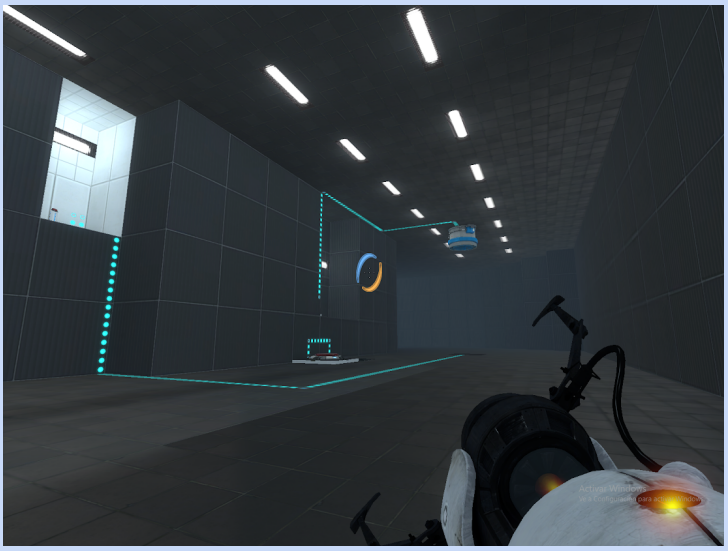




MAP 6: COMMAND DECK – FLOOR PLAN







The centrifuge is where the characters in 2001 spend most of their time, this had to be a big level that gave an ilusion of cirularity.

Here I divided the circle in three parts. I used laser walls and water holes to pevent the player from crossing. The objective is to cross to the other side and complete the circle.

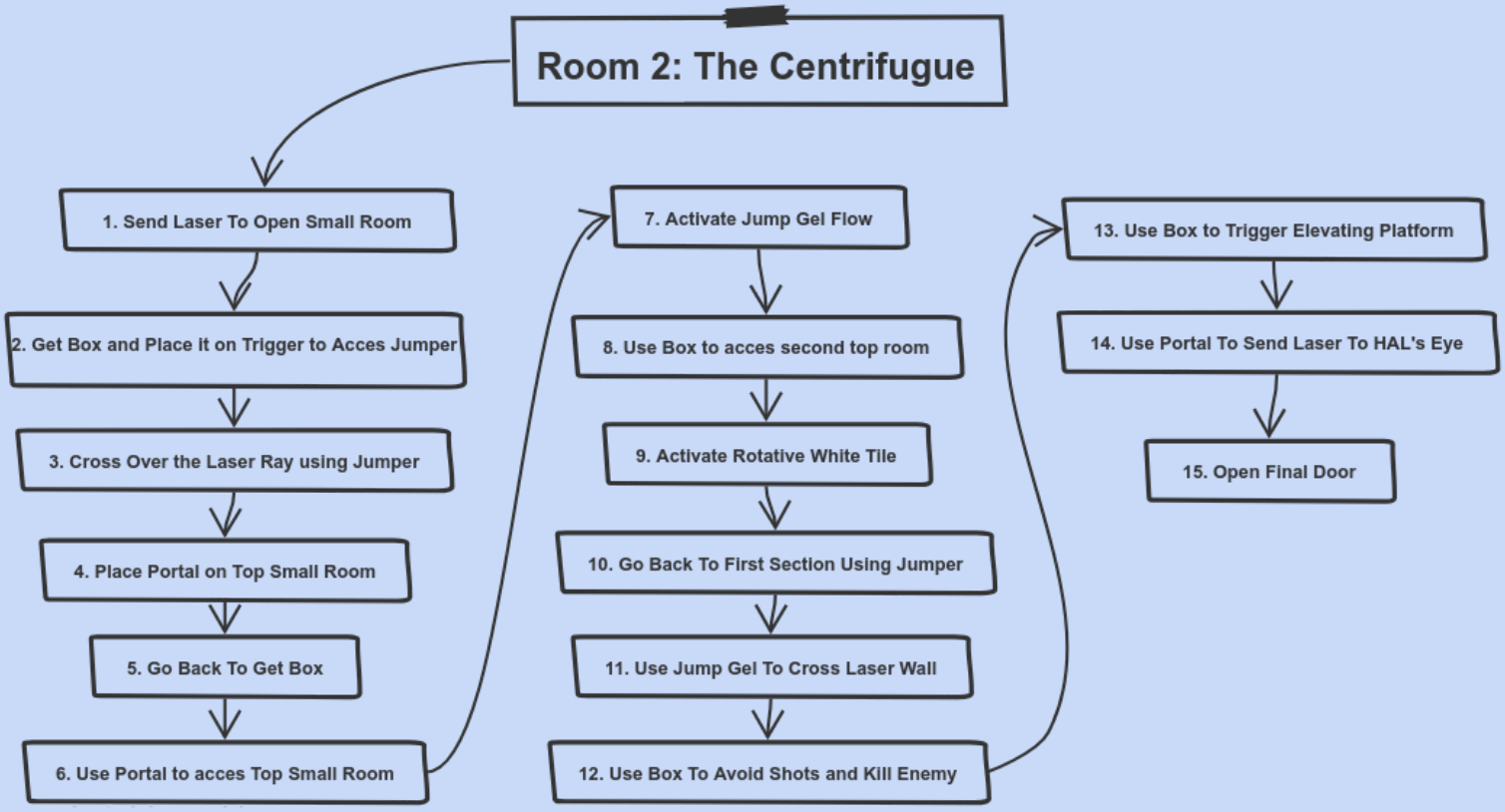
One of the first things the player sees is a laser wall that at first sight, protects nothing. Then he sees a “Portal Box” protected by transparent walls. I placed lights on top so that it is seen easily.

This map is highly influenced by lights, placed on the ceiling and on top of important spots. Leaving most of the map somehow more in darkness. I used the direction of the celing lights to guide the player thought the level.

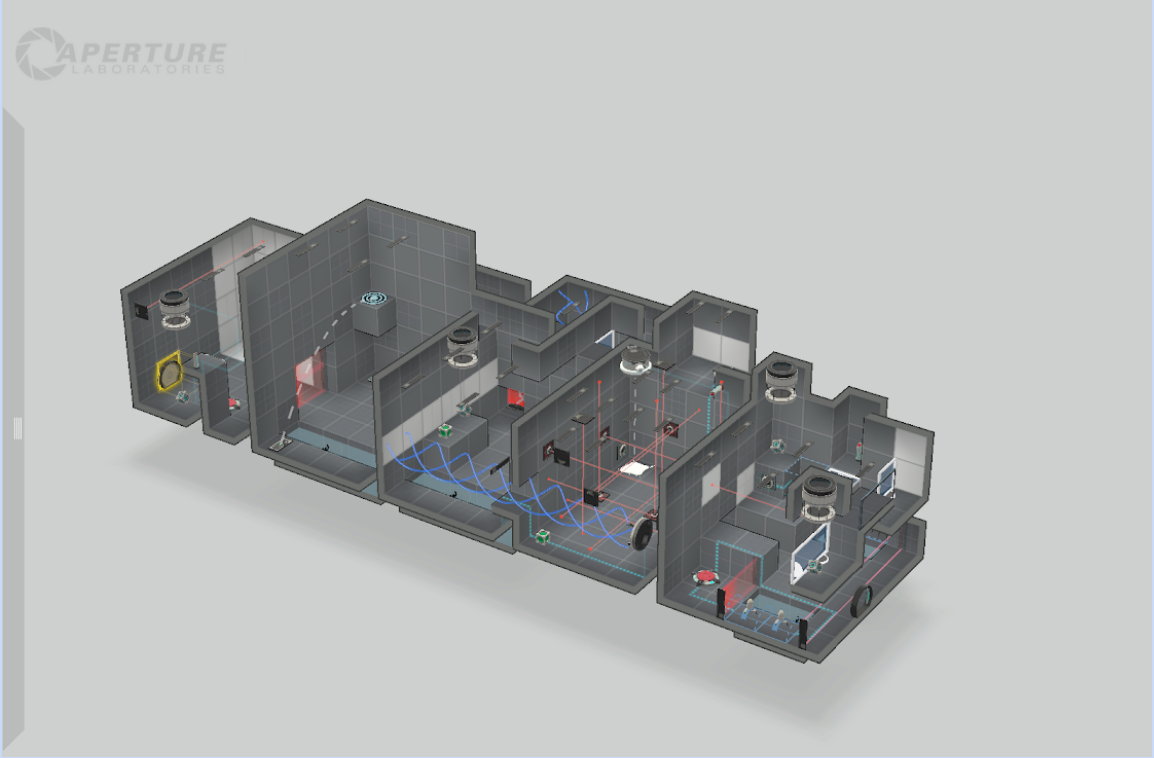
I had to dispense from the portalable white tiles else the level wouldn’t work. This gives clues to the player: Everytime he sees white tiles, he directs his interest towards it.

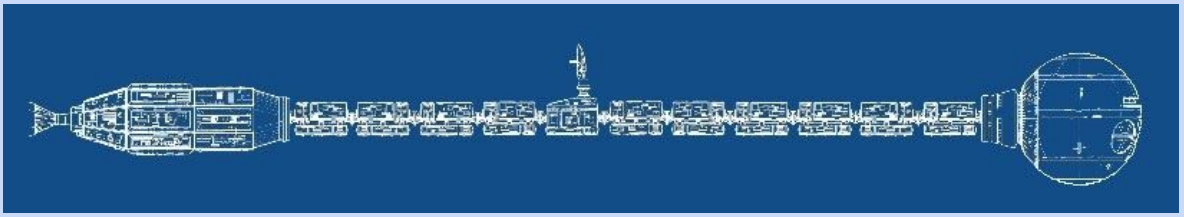
The exit is “hidden” on the other side of the map. Once the player has gone though half of the map, he can see where the ending is and the challenges he’ll need to overcome ones there, so he can think and prepare, avoiding wandering arround more than needed.

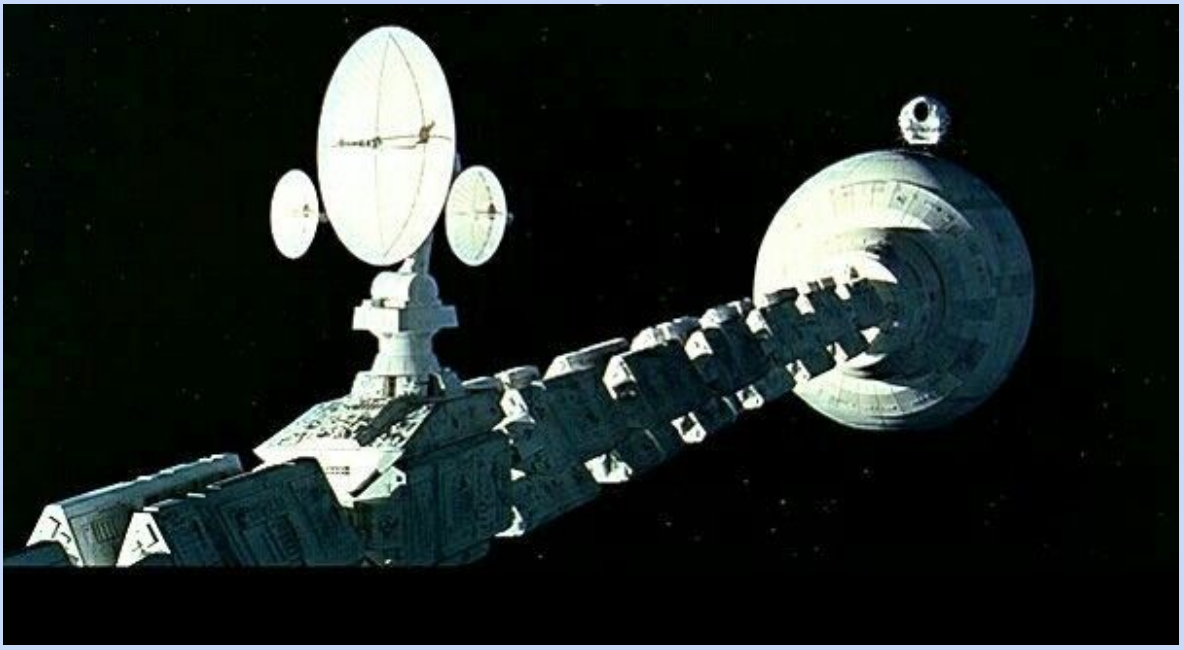
Level FlowChart

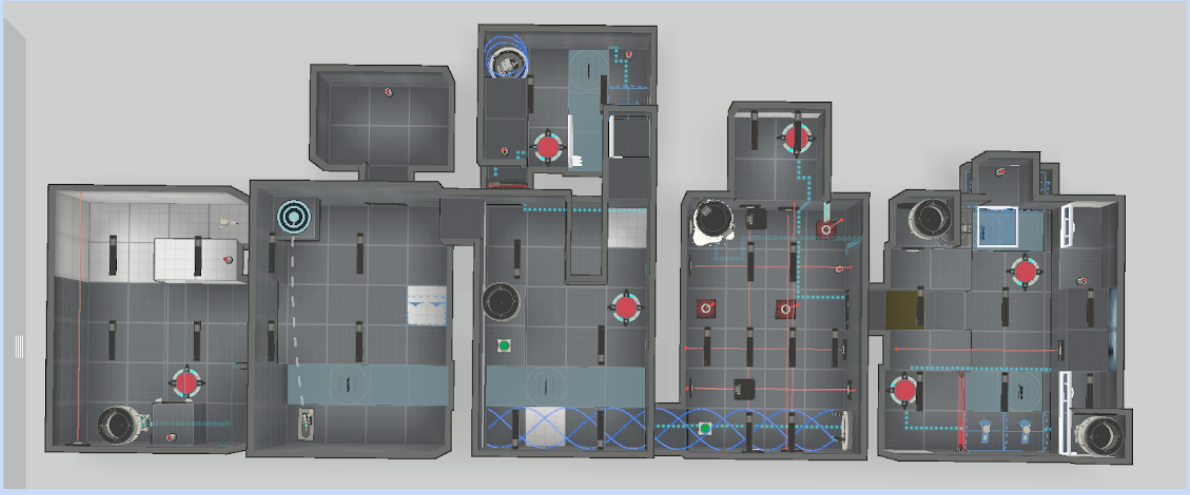


Room 3: Discovery's Tunel





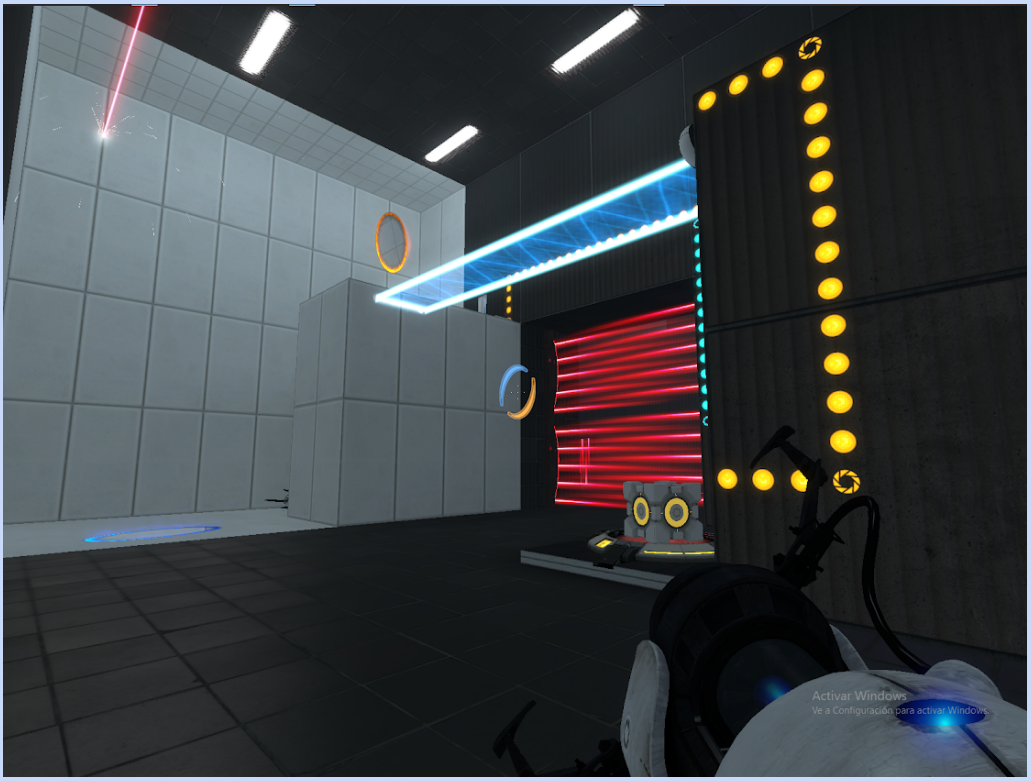




The Tunel is the final level I did of the three. It is the most complex by far and is divided in 5 diferent rooms which are intercontected. What the player does in one room affects the next room.
I gave a use to everything the gmae editor offers in order to explore as many possibilities as I could in a single level.

I will explain one by one the rooms and its components, as well as the steps the player has to do in order to complete the whole level.

A. The First Room



The first room is the easiest one. It is a small space with all the elements needed interconected by points. The player just has to follow the dots to connect the items. Everything that doesn't need to be Portalable is in black tiles.

First has to get rid of the enemy hidden behind the wall just by using portals, making him fall. This can also be done by jumping over him, also with Portals. Then he has to switch on the light bridge by placing the box on the trigger. Finnaly desactivate the laser wall by pressing a button on the upper platform.

There is a laser that has apparently no use in the room. It will be needed in the second one.

B. The Second Room

It is a dark room. There are only a few lights. This could be fixed if the Editor let the designer place non portalable white tiles as those appear on the game. But when creating the levels, it is only black or white.

There is a small room whithin the level where there is a button. A simple one. This concept will be explored deeply in the next room. The player's objective is to press the button to continue.

First, he has to lead the laser of the previous room into this one to open the small room, then from ther, activate a rotating white tile. This platform faces the other side of the room where there's a jumping item that leads to the end of the room.
In order to succesfully use the platform, the player has to go back to the first room and jump.

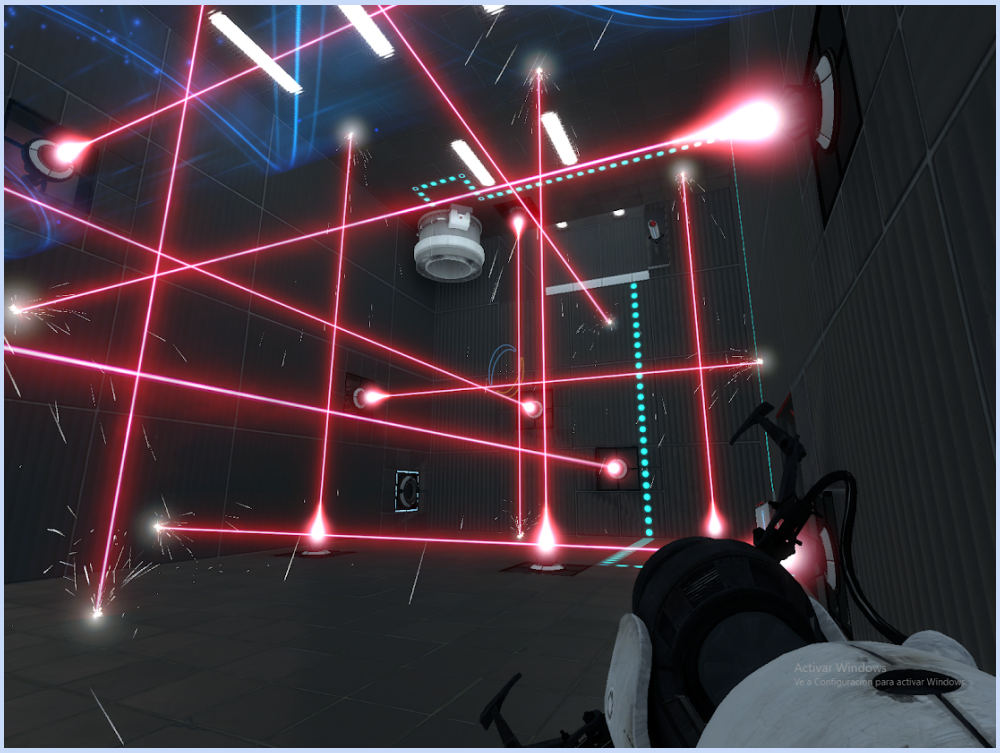
C. The Third Room

The third room features a blue energy canyon. The player has to use portals to lead that ray into a vertical orientation to that he can acces a small “hidden” room.

Inside that room, there’s the button that opens inverts the flow of the ray so the player can move into the next room. To do that, the player has to bring with him a magnifying glass box to deviate a red laser ray.

The player learns this concept, that will be key in the next room.
Once there, he can’t go back. It is the point of no return of the level as a whole.

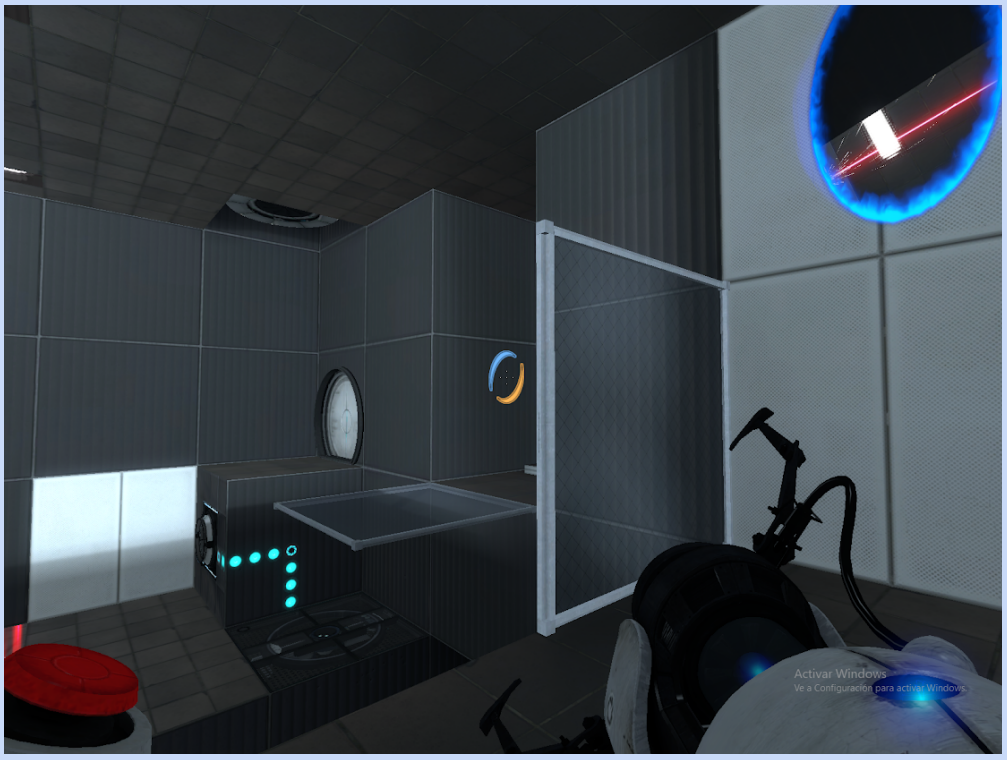
D. The Fourth Room

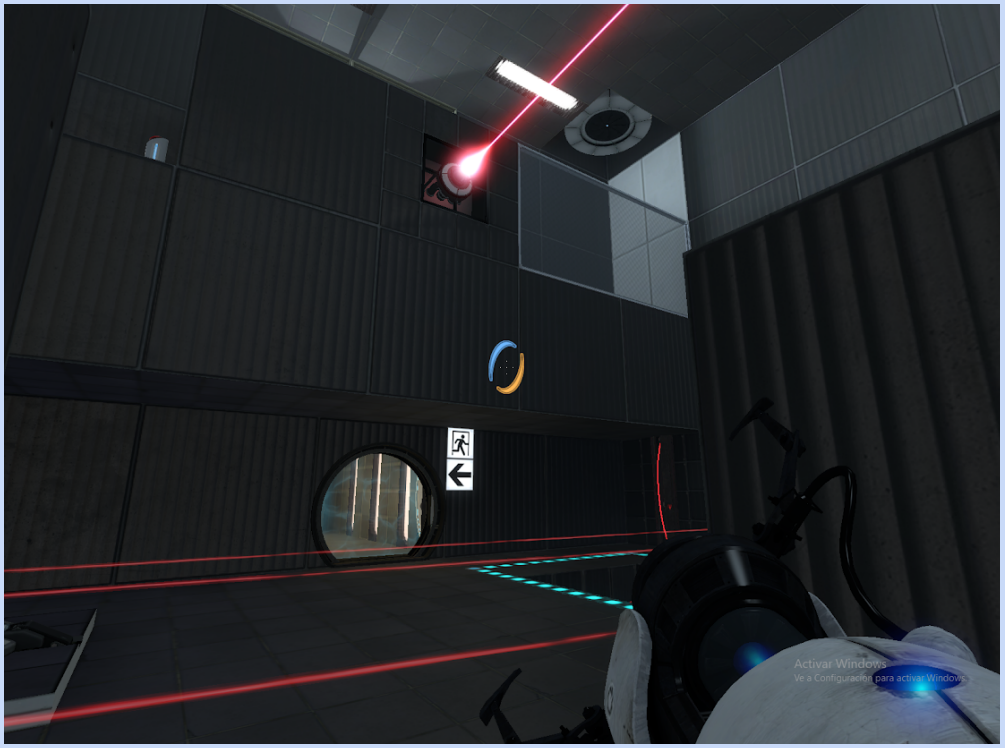


This could be labeled as the laser room. It may look like a museum at night. The player fins a refracting box next to him, which he has to use to move through the room.
The player has to acces a top room to open the laser doors that lead to the finnal room. It is rather an easy and cool level, to “relax” before the last one which is harder.

There is a laser eye that is kind of not at first sight and that is necessary to complete the next level. The player will have to come back in order to advance in the last one.

E. The Fifth Room





This is the final level. It is more variated than the others, and the player sees items that has seen before, nothing new.
He has to wander arround the room to finish it as well as going back to the previous room.

There are four enemies in the center where the player can't step into unless protected. It will be the objective of the player to open the laser doors and find protection as well as finding a way to detroy the enemies.

3. Level Goals and Game Summary

3.1. Intrinsic Goals

The Player will have to use **Portals** to move arround the level and send items.
Then the player will have to explore the environment and solve the **General Puzzle** to get out the room.
Finnaly the player has to use the environment and its items like **Boxes** or different types of **Gel** to solve the small parts of the puzzle.

3.2. Extrinsic Goals

The main one is **Problem Puzzle Solving** which requires **Thinking**. There is not any kind of timer, so the player can spend as much time as he needs to solve it. This fits in the "eternal" state in which the characters live within the plot. Time is diferent for them.

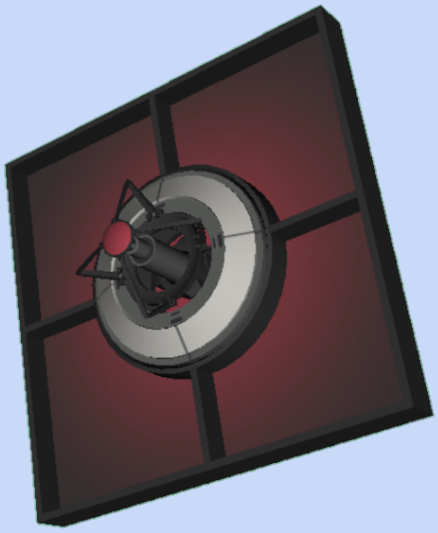
The game has a **Slow Rythm**, the player is alone and his only enemy is his limit in undertanding and solving the puzzle.
The human brain is prepared to conect everything possible to create relations that don't really exist, puzzle solving exercices this. The player feels smart, gets pleasure when solving the puzzle.

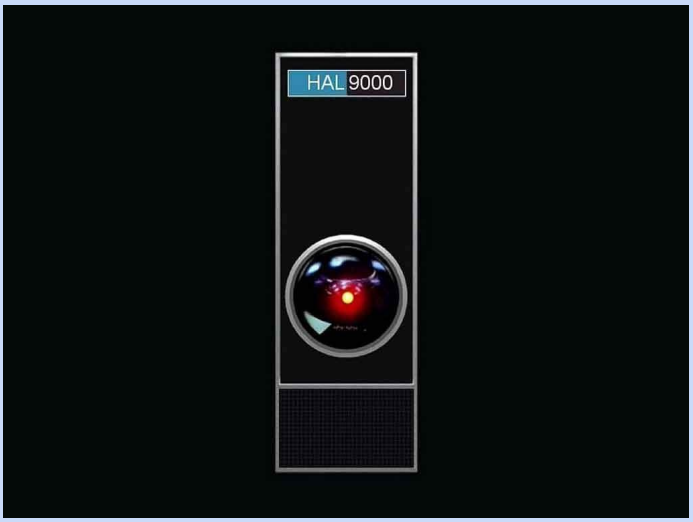
3.3. Soft Skills

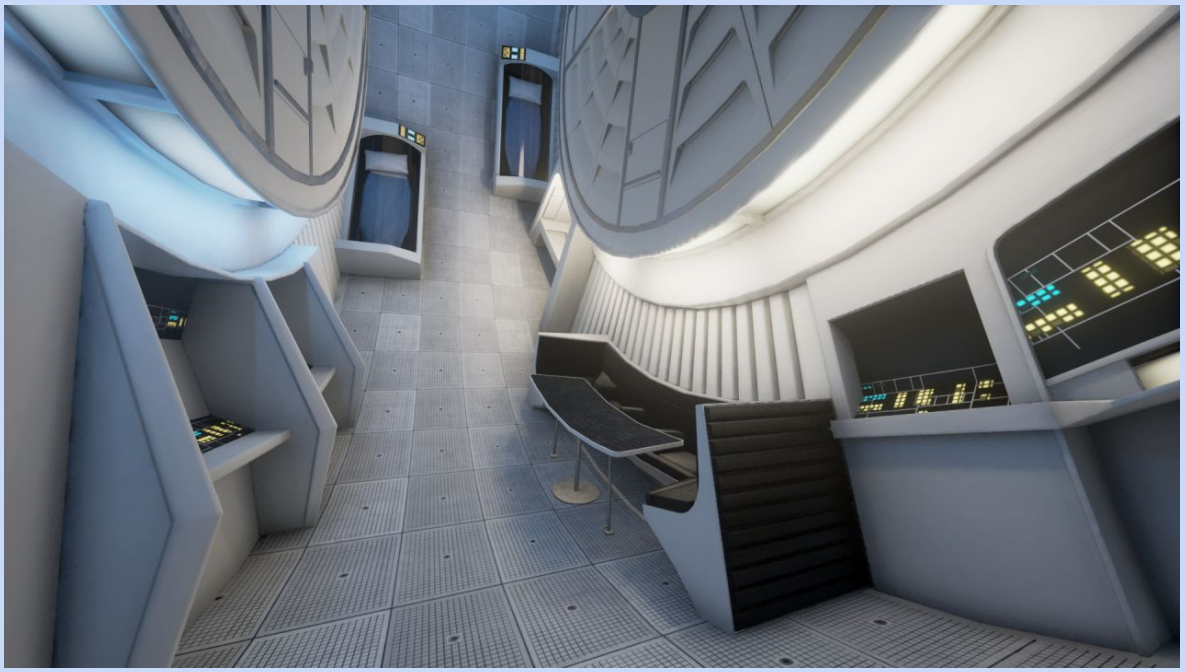
- Retrying: The player gets to repeat the level as many times as needed when dying. Even if he doesn't die, if the game is well designed, he has to be able to get any item he looses. The level has to prevent the player from getting stucked.
- Decision Making: Though there is no rush, the player has to decide how to afront the level. What to try or go first. And create a strategy from what he is given.
- Perception of space and spatial scanning: The player has to analyze what is palced arround him and create a mental priority list. He has to identify what are the items he is given and what can he use those for.

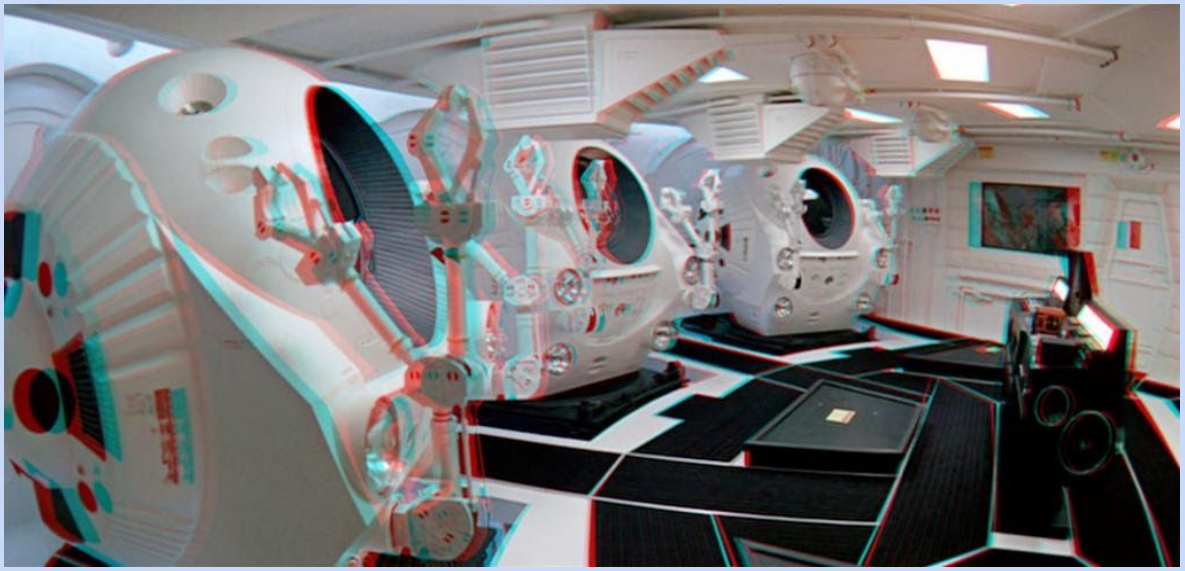
- Self-Esteem and Motivation: This game works perfectly on this, after the player has sovled a puzzle he is up to and ready for the next one. Wanting to prove and mantain his status of “smart guy” who can solve anything.

4. Graphical Overview









5. Play My Rooms in Portal 2

To play the levels, the game Portal 2 is needed. It can be purchased and downloaded on Steam.

Enter the game and go to Play Community Chambers. Select Single Player Chambers and explore Workshop. In there, look for the chambers bellow:

Room 1: Pod Bay (Discovery_Room_1)

Play: https://steamcommunity.com/sharedfiles/filedetails/?id=2082107896

Room 2: Centrifuge (Central Room Discovery)

Play: https://steamcommunity.com/sharedfiles/filedetails/?id=2081847321

Room 3: The Tunel (USS Discovery One Tunel)

Play: https://steamcommunity.com/sharedfiles/filedetails/?id=2083228796