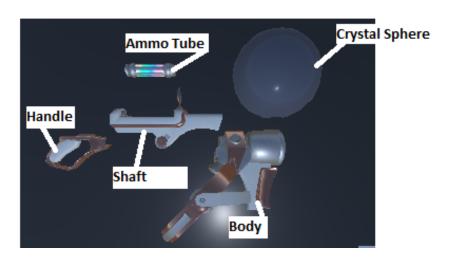
# Portal Bob Treatment Bilal Aslan Ameel Valjee Khaya Sambo

### **Storyline**

Disaster strikes as the Divided States of America attacks the HAWKS base in South Africa. Bob, who is the HAWKS's top agent, got trapped underground while he was testing his experimental gravity gloves on top of a platform in the basement of the base. The base is being flooded and as the water touches the main cable line it gets electrified, now Bob needs to find a way out. All hope is not lost as he does have access to the parts of his portal gun but he needs to put it back together before he gets electrocuted. He can reach the lever which will drain the water with help of portals. Will he be able to make it in time?

### **Mechanics**

The environment is Sci-Fi themed, with the portal gun and avatar selected to complement it. When the game begins the player will be on top of a platform in a room. In front of the player, there is a table with five different portal gun components: the handle, body, shaft, sphere, and ammo tube.



The player will be an avatar, Bob. This will help the player assimilate to the environment as he is dressed in the same style as the scene.

To get the player started, the gun handle will glow, this will serve as an indicator that assembling the gun is the main objective. The handle will be the base component of the gun. All other components will be attached to this component. If the user picks up the correct subsequent piece, the player will be able to attach it to the handle and this will cause a light vibration on the controller and there will be a sound confirming the attachment.

The gun can be assembled in the following order:



1. Grab the gun handle



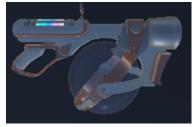
2. Attach the shaft to the gun handle



3. Attach the front component to the shaft



4. Attach the ammo tube to the gun handle



5. Add the crystal sphere

Once the player has a fully assembled portal gun, they will be able to use it to shoot two types of portals, one blue, and one red portal; each will have a signature sound. The player will be able to choose which portal type to shoot. There could be only one of each type of portal. Therefore, when a player shoots a new portal, the old portal of the same type will be destroyed if it exists in the environment.

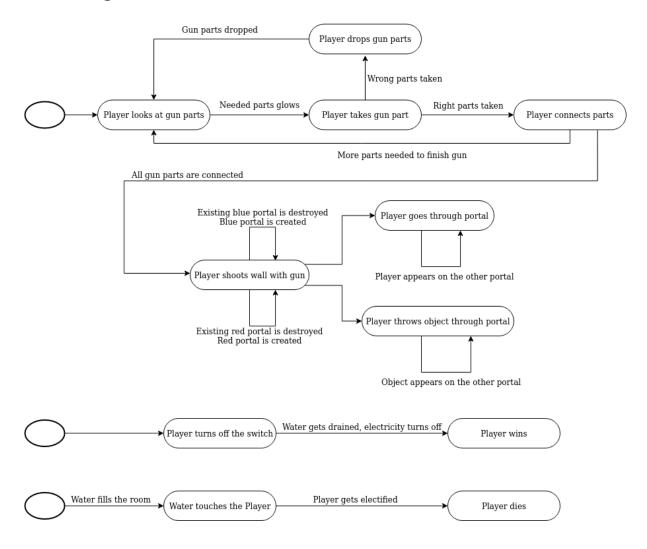
The player's objective is to pull the lever which will drain the electrified water that will be slowly rising in the room when the game starts. The water will have a slight sound which will get louder as the water rises to signal to the player that time is running out. There will be a visible electric cable coming out from the wall and it will be making a buzzing noise with some electric animation.

The player would be able to pull the lever by using the portal gun to shoot two portals to the walls, one close to themselves and one close to the lever. Once the lever is pulled down, the water will drain out of the room and the player will then be able to jump down from the table. The room will become a playground where the player will be able to create portals, go through the portals and throw props through portals. These props have no functions themselves and serve as something to interact with the portals.

The game objectives are as follows:



# **State Diagram**



# **Paper Prototype**

To capture the essence of the game, a paper prototype was made. The paper prototype walks us through the different stages of the game design, informs decisions on the placement of environmental elements, and provides a look at how the user is expected to interact with the portal.



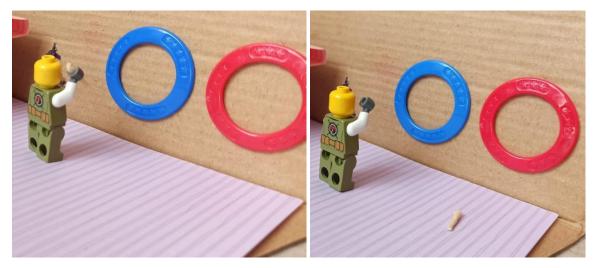


Entry Scene

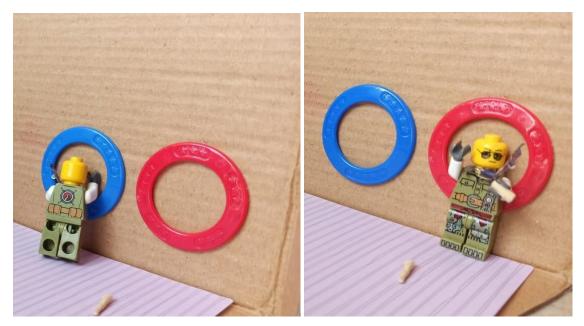
Gun assembled and first portals are shot



The player reaches for the switch using portals.



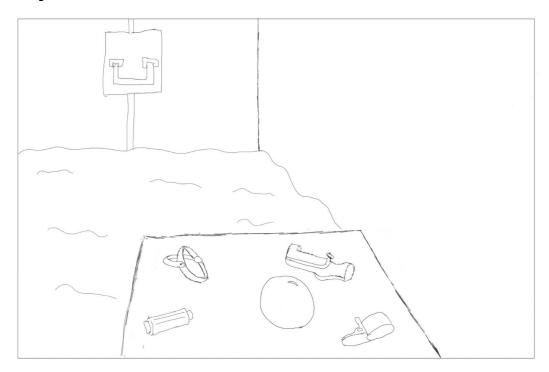
The player throws a prop into one portal. The prop exits through the other portal.



The player enters the portal.

The player exits through the other portal.

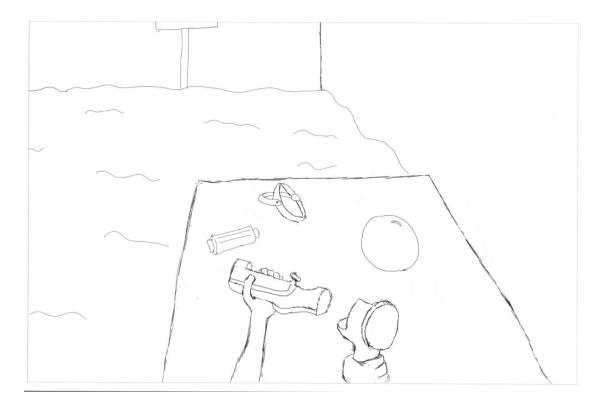
# **Story Board**



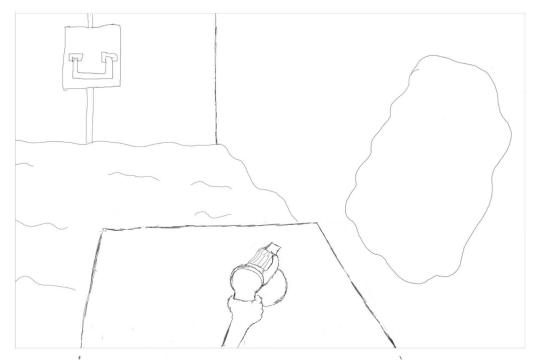
The player enters the scene and finds themself stranded on a table with electrified water rising around them. On the table, there are parts that can be used to build the portal gun, and at the end of the room, is the switch to drain the water.



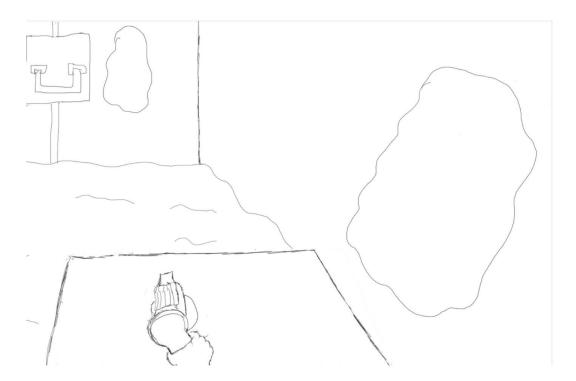
The player selects the gun part by pointing and can pull it towards them similar to the gravity gloves in Half-Life Alyx.



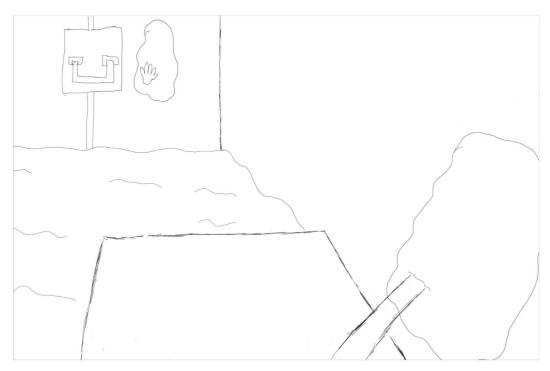
The player then assembles the parts to create the portal gun.



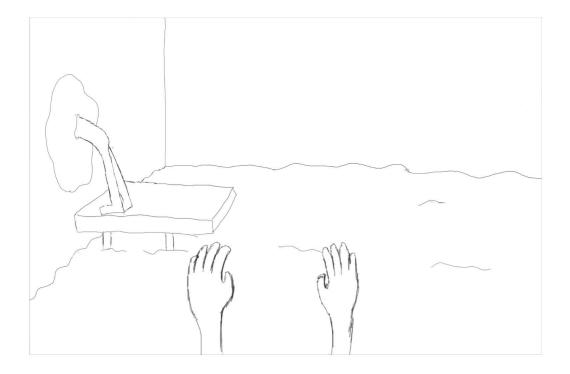
Once the portal gun is complete, the player shoots a portal on the wall adjacent to the table.



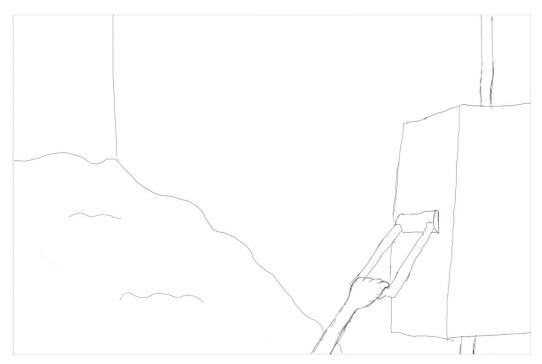
The player then shoots the next portal next to the switch.



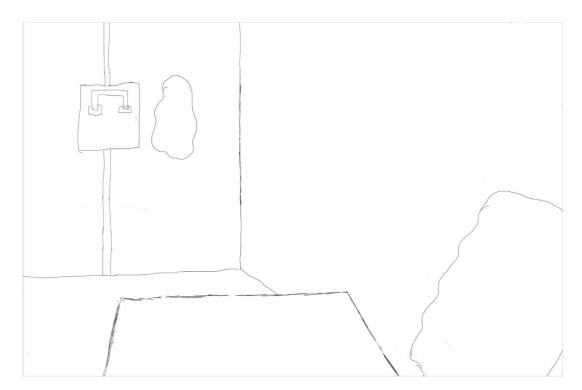
The player sticks their hand through the portal and realizes they won't reach the switch.



The player then sticks their head through the portal to get further reach and sees their avatar from both a third-person and first-person view.



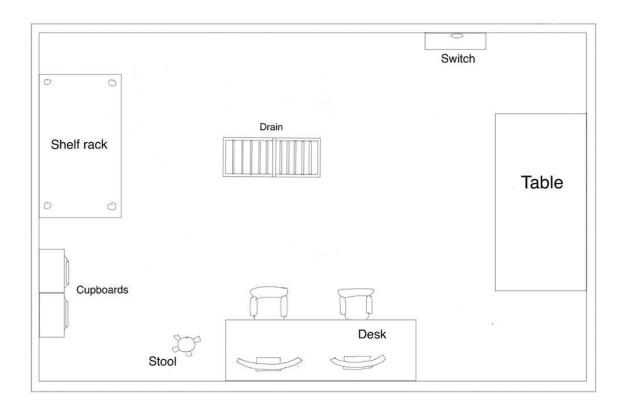
The player pulls the switch to drain the water.



The player waits for the water to drain and after it is drained player can roam free in the lab.

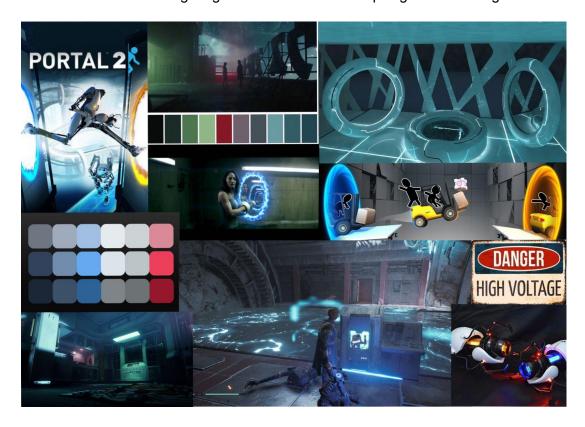
# **Floorplan**

The laboratory consists of a large table on the right-hand side of the room with the drain switch directly in front. Around the room are shelves, cupboards, and desks which contain interactable objects that can be thrown into the portal.



### **Mood board**

The theme of the scene is denoted through a mood board. The scene will emulate a discarded scientific laboratory with a dark and suspenseful atmosphere through the use of dull colors and ambient lighting combined with subtle spotlights and red lights.



### **Beyond The Scope**

If time allows, the storyline will be improved. The new storyline will include a more detailed tutorial and cutscene which will serve as a learning tool for the player. The player will be exposed to the mechanics of the gravity gloves. The cutscene will flow to them being stranded on the table through the following narrative:

The scene opens with Bob sitting on a table. Bob just completed putting on his gravity gloves.

Bob: Haha, I've always wanted a pair of these. Let's give them a shot!

The player is then given a short tutorial on how to use gravity gloves. After the tutorial, another cutscene will follow:

#### Lights go off and the siren wails

Alyssa the assistant on the intercom: The lab is under attack, we need to evacuate now!

A rush of water enters the room. There's a loud bang followed by an electric pole falling into the water electrifying it.

Alyssa: Bob, can you hear me?! The water ducts have been breached, you need to manually override them with the lever to drain the water.

Bob: I know! But I can't reach the darn thing, the room is getting filled with electrified water!

Bob looks around and spots the parts of the portal gun and then looks at the lever

Bob: I need to put this portal gun together right now if I want to reach that lever.

The screen fades and the player is in control of Bob and can start the game.