LiDAR

**Title of game**: LiDAR

**Tag line**: See what’s not there.

**Team**: Yengchee, Tekana, Zach

**Date of last update**: Most likely the due date of the project.

Overview

**Concept**: The player is equipped with a device, called the “Light Emitting Manual Operation Navigator”, or LEMON. This device shoots out a bunch of lasers which leave little dots on the surrounding area to help the player navigate through dark areas, or to see objects that do not appear to be present at first glance.

**Target Audience:** While it may be a bit cheeky, we want to go for the same target audience that captured so many with Valve’s Portal series. Preferably those interested in puzzle solving and science fiction.

**Genre:** Sci-fi, puzzle, first person shooter

**Game Flow:** The player will use either buttons or joystick to navigate through the world. The player will be able to jump, walk, and hold down a button to use the device they are equipped with to reveal key puzzle objects. Depending on engine/hardware limitations, there may be also a button to reset the count of dots in a given area. The player may also contain the ability to crouch if found necessary.

**Look and feel:** Taking inspiration from Valve’s Portal, environments will look a couple of ways. The game will start out in the first section looking bland and white, with the player discovering objects that are not visible at a glance (without using the device to reveal it first). The game will then progress into darker areas, requiring the player to use the device as their “eyes” more or less. This section of the game will build tension and put the player on edge. The final section of the game will contain the player exploring the areas not intended for them. Rusted rooms in disrepair, forcing the player to take a different approach to their problem-solving. The game needs to fill dystopian and lonely, but with the feeling that the player is always being observed by something they cannot see or fully understand the purpose of until later.

Gameplay

**Objectives:** The objective of the game will be to navigate your way through the different areas presented by the game.

**Progression:** The player won’t necessarily need to “level up”, just advance through levels. New mechanics may be revealed as they progress to keep things interesting.

**Play Flow:** Much like *Portal*, the best strategy to establish flow would be making the player travel through the level, and then having them at some point seamlessly (or with some seam) load into the next level.

**Challenge structure:** The main challenge for the player will be reaching the end of the level by solving the puzzle.

**Puzzle Structure:** The puzzles will be the main focus of the game. The game will present the player with a room, perhaps with an objective in sight or detectable nearby, and they will have to figure out the solution given what they can use. Certain mechanics may be used for different levels, absent in others, or even combined to provide a challenge.

Mechanics

**Rules:** The rules are rather simple. The player must obey the laws of physics within the 3D space, use the device to reveal key aspects of the puzzle and/or surrounding area, and find the solution to each puzzle without cheating against the rules established.

**Progression:** The player will go through a linear progression, solving various puzzles/levels increasing slightly in difficulty as they go along.

**Model of universe:** The game will take place on Earth, and thus objects and the player will mostly interact with each other in a way that most would expect. The only exception will be that the player will be able to use the LEMON to reveal objects that do not appear on the visible spectrum of light, to reveal dark areas, or to do whatever else we might find interesting.

**Character Movement:** The character would move as one would expect a human to. Relatively quick but not too fast. They will be able to jump and crouch.

**Objects:** The player will be able to pick up objects and move them, even if they are not revealed by the LEMON, and in some instances, this may be of advantage to the player.

**Actions:** The player will have to take several actions to reveal the exit to the puzzle, or be able to use the exit. This will be a use of sensors, buttons, or levels the play will have to use.

**Combat:** The combat of the game will be simple and similar to Portal’s final boss. The boss will be only be able to see the player after scanning it with a different version of the LEMON. The player will have to remove the dots so the boss cannot see them, and then take whatever action (TBD) used to defeat the boss.

**Options:** The only in game options, if any, will be affecting the quality of the game in terms of graphics. There will not be any options to make the game easier or more difficult.

**Saving:** The game will autosave after each level.

**Easter Eggs:** Whatever we decide to implement. I think it would be fun to try and hide things from other developers to create Easter Eggs. Whatever is not found and deleted stays in. Just practice good taste with Easter Eggs. There will be some Easter Eggs that reveal more of the lore.

Story

**Plot Elements:** The player will use the LEMON to navigate through the world, while a disembodied voice talks to them along the way. At times, the voice will reveal it is slightly unhinged, and possibly does not have it all together. At the end, it is revealed that the boss is unaware they are an AI, which causes them to lose it and go insane.

**Cutscenes:** The only cutscene we may have is the boss finding out they’re an AI, otherwise, it should be the player who gets control at all times.

Characters

**Main Character (Name TBD):** There will be no backstory presented to the player other than waking up in a strange place. The disembodied voice may reveal to the player the circumstances they may be here under, but it will be up to the player to theorize the mystery for themselves.

**VICTOR (Very Intelligent Computer Testing Operations Robot):** Does not know he is a robot until the end. Slightly unhinged, going fully insane at the end. Through one of the Easter Eggs, the player may see that Victor was designed to manage very low level simulations or tests, but through events unseen he is now the only thing left.

Levels

**Levels:** While we have a few designs in mind, we are currently making things up as we go along. They will thematically look similar and connect.

Interface

**HUD** : There will be very little HUD, the only thing occupying the player’s screen will be the crosshair, weapon, and possible readout if the player is reaching a limit of dots.

**Camera:** The game will be in the first person perspective.

**Controls:** The player will use the WASD keys to walk around, Space to jump, L Mouse Button to fire, and the scroll wheel to increase radius or density of dots.