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

**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.

**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.