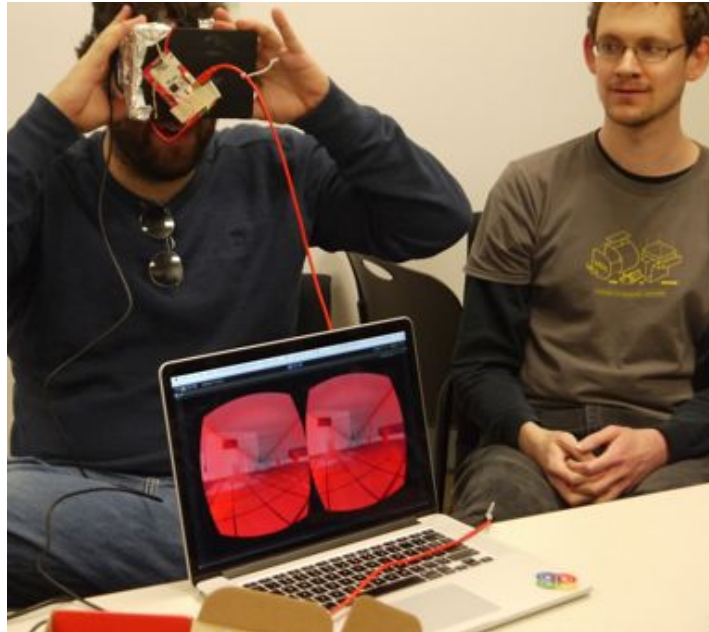


CYCLOPULUS aka CYCLOCULUS aka CYCLOPSULUS

(CYCLOPS on OCULUS RIFT)

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Introduction

With *Cyclopulus* we set out to create in users the sensation of being able to shoot force beams from their eyes. Cyclopulus uses the Oculus Rift, a MakeyMakey, and the trial version of Unity Pro in order to accomplish this goal, and was a rapidly prototyped project developed in about two weeks.

Process and Roles

Both Matthew and Anthony came upon the concept early in the semester, and when it came time to begin work on a final project we decided to revisit it. An eye-laser shooting experiment seemed viable and fit in with our values for VR experiences because:

- 1- The mechanic relied 100% on what the user looks at in the scene, discarding movement, narrative, or any other secondary approach. This allowed us to focus purely on the experience of being in the space and being able to look around as the primary experience and distill it appropriately.

2- It seemed fun, simple, appropriately scoped, and no one had done it before that we had been able to find.

3- It references to commonly shared cultural experiences through comic book superpowers and invites comparisons to easily accessible, but essentially harmless and surreal, power fantasies.

Matthew and Anthony would be responsible for code and scene building, and Bryan was responsible for 3D assets plus additional scripting support.

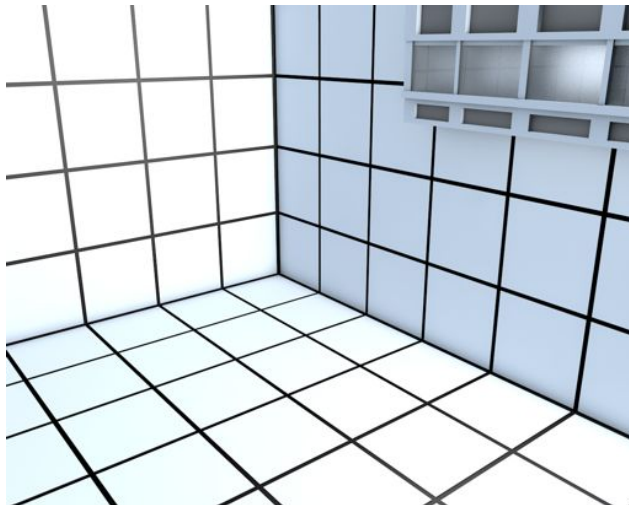
We intended to hit as many of the following milestones as was possible in the time available:

- Laser blasting with a dynamic scene, a shooting gallery feeling
- Custom hardware to attach to the Oculus Rift for user control
- Elaborated control scheme, drawing on iOS game Ziggurat for inspiration
- Multiple scenes with varying goals and situations, including losing your visor

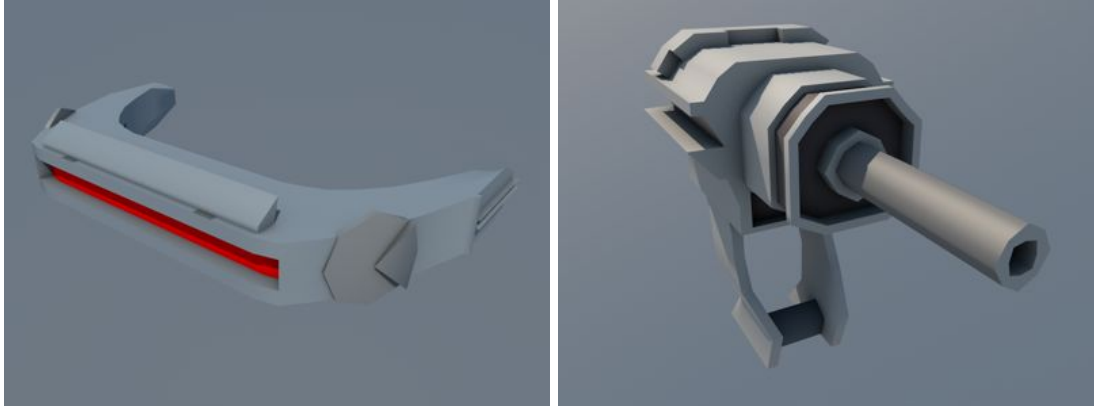
Though we only hit the first two goals, we intend to follow through with the next few for a future iteration.



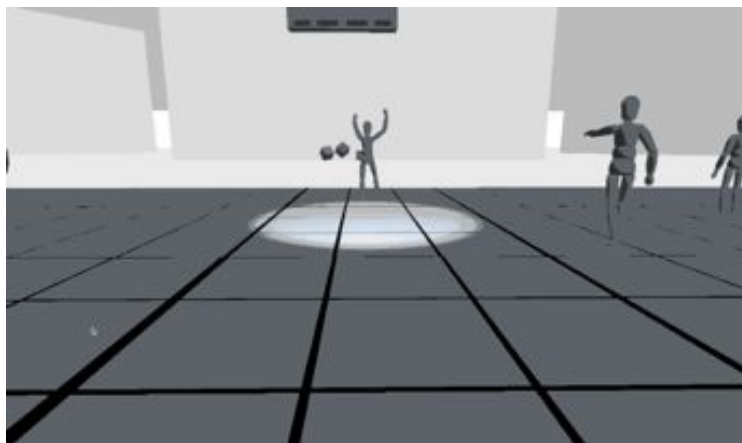
Ziggurat - timing based hold-and-release firing scheme.



Danger Room scene render in Cinema 4D



Cyclops visor and Danger Room turret render



Initial Beam effect testing, with offset-scrolling textures on box primitives to create the beam, and a particle effect on the contact point.

Playtesting Results

Although we had only an initial test running with our minimum desired milestones hit, in general playtesting was successful. The MakeyMakey hardware adaptation we rigged together was very haphazard, utilizing aluminum foil to make a circuit between the user's forehead and their firing finger, but once technical difficulties were addressed, users immediately understood what to do in the scene and how to go about doing it. This resulted in some unexpected giggles of joy.



Conclusion and Next Steps

In general our expectations were confirmed - the ability to shoot beams from your eyes outweighs the idea of free movement in a VR game, and it is engaging more or less from the start. We will continue to iterate on this in the attempt to make it a bit more polished of an experience.