

**Project Title: Untitled**  
**Team Name: Gold Team**

Name: Keana Mowery  
Cognate: Graphic Design  
Skill Sets: Adobe Suite  
UX Design  
Python  
Logic and Algorithms  
MySQL  
Concept Art  
3D Modeling

Why I Care:

I am passionate about videogames, art videogames and walking simulators in particular. I am an artist before all else and enjoy conceptualizing an environment. I have a passion and obsession for finding solutions and making code work.

Name: Vincent Orlowski  
Cognate: Security & Psychology  
Skill Sets: Python  
HTML/CSS  
SQL  
C++  
Networking  
Secure Coding  
Audio  
Testing/Debugging

Why I Care:

I have always been passionate about audiovisual media and games. I am very adaptable to different systems and the idea of a project that would culminate my interests while testing my own development skills as well as requiring new ones sounds very appealing to me.

Name: Fernando Flores  
Cognate: Computer Science  
Skill Sets: Python  
Java  
C++  
Unity Programming  
Unity VR Development  
JavaScript,  
Music production  
MySQL  
Node.js

Why I Care:

Programming applications has been well and great, however, combining my knowledge of technical programming and my love for video games, really intrigues me. We are hoping to create something unique that stands out from the masses and that isn't another Flappy Bird copy.

Name: Alexandria Heston  
Cognate: Human Computer Interaction Design  
Skill Sets: Adobe Suite  
UX/UI Design  
3D Modeling  
Python/PHP  
Javascript  
Logic and Algorithms  
MySQL  
Unity VR Development

Why I Care:

I have always had an interest in VR Environments and understanding the logic and creativity behind it. I have had previous experience with 3D modeling and design through my academic work, as well as interface design. This project would allow me to make a significant contribution to the development of this technology, while also having a lot of fun.

Name: Yeong-U (Patrick) Lee  
Cognate: Business  
Skill Sets: Python  
Arduino  
MySQL  
Marketing

Why I Care:

Gaming has always been a big part of my life. This is an opportunity for me and our team to expand our knowledge from traditional gaming to future-oriented gaming. My main focus is working with arduino and sensors to create a glove controller. I'm excited to figure out the coding and hardware.

## **Roles:**

Research the Problem: All  
Research the Solution: All  
Designing the User Interface: Keana  
Coding the logic: Fernando & Patrick  
Concept Art: Keana & Ali  
Modeling: Keana & Ali  
Managing the database: Fernando & Patrick  
Documenting your work: All  
Status reporting: All  
Testing: Fernando & Ali  
Assigning Tasks: Keana

**What specific training needs will we have to fulfill in order to fill these roles effectively?**

The training involved to successfully develop our VR application will include conceptual artistry, 3D modeling, engine lighting, C++ programming, node-based scripting, motion detection algorithms, Arduino hardware programming, effective game planning and stage creation. Implementing all of these concentrations will require serious management and collaborative skills.

## **Problem Statement:**

What is the problem you want to solve?

Virtual reality is an immersive platform, but it has not yet been pushed to its most involved level of interactivity yet.

What group of people are going to benefit from your solution?

Virtual reality gamers and those who enjoy walking simulators will benefit from our solution.

Why is this an important problem?

Virtual reality is an emerging market with endless potential for expansion and innovation.

Why would a business buy a solution to this problem?

Consumers of virtual reality software, and those who produce equipment for virtual reality consumers, are always eager to spend their money on new equipment for a better virtual reality experience. Though our focus is on successful game/controller development and not on making money, it is

What good things will come from your solution?

Everyday gamers will have easier time to approach virtual reality gaming and understand virtual reality as something common and reachable just like PC and Console games . This will help the market to grow when more gamers are exposed to virtual reality. Eventually gamers will see this as an opportunity to create different gaming styles other than traditional gaming style with controllers.

What bad things won't happen as a result of your solution?

It will prevent gamers to be less unhealthy and promote more active and physical interactions within a virtual world.

## **Project Description:**

What is your proposed solution?

We desire to develop a Virtual Reality Game environment in which the user can interact with their surroundings in a more native and intuitive way. This would help demonstrate the capabilities of VR while showcasing new, more immersive, ways to use VR.

Briefly describe your solution to the problem.

We would like to implement a glove controller, initially exclusive to our game, that enables the user to interact with the game using their actual hands instead of a conventional 2-stick controller. Such an interactive system enables fuller immersion and more intuitive gameplay.

How does your solution address the problem?

How will you implement your solution?

We will develop a virtual reality environment manipulation game with capability to respond to the glove controller, created using Arduino.

Are there any similar solutions out there? If so, what makes your solution better or different than existing technologies?

Very few solutions exist for this problem. While some VR games are vastly immersive, there is no full controller solution that allows one to interact with the environment simply by using their hand. Most controls out there have a learning curve and are often unintuitive. Our solution focuses on producing this fluid reaction to game content like very few solutions out there can.