**First Person Shooter Game**

EE267 Project Report

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**Introduction**

For our project we created a classic first person shooter (FPS) game with a medieval theme. FPS is a genre of games with weapon-based combat where the player experiences the environment through the view of the protagonist. In our game the player can use controls to change their position and shoot, and the orientation of their head is tracked using a VRduino unit.

**Gameplay**

The objective of the game is to destroy all the targets - floating white crates in this case. Pink particle effects are present above each target to direct the player towards them. The player must navigate the environment to find all the targets, and the number of remaining targets are displayed. The game ends when the player successfully shoots all the targets.

![Figure 1: The game environment](image)

**Controls**

*Position:* The position can be controlled using the up/down/left/right keys or the w/s/a/d keys.

*Orientation:* The orientation of the head is tracked using the VRduino. It controls the orientation of the protagonist as well as the orientation of the weapon.

*Jumping:* The spacebar can be used to make the protagonist jump.

*Firing the weapon:* The weapon can be fired using a left-click or a tap on the trackbar.
Source Code
The source code of the project can be found here: https://github.com/GetHub91/EE267_project
An installation guide and troubleshooting steps can be found in the readme file in said Github repository.

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