

## Digital Shooting Range

We are aiming to build a target shooting game. The game will contain a physical gun and a target; the screen of a monitor will serve as the target displaying the latest hits as well as the scores for the players, and the gun will contain a camera to estimate the position a bullet will land, a trigger switch, and clear switch. Of course there will not be physical bullets, instead we will either fire a laser pulse or just use the trigger switch to indicate that a bullet has been fired.

When we produce the basic functionalities of the game (estimating the hit pose, displaying the hit on the screen, and clearing the screen when the player finishes the round), we would like to mimic the recoil, and sound of an actual gun. A stretch goal would be adding a moving target as well as adding target acquisition and tracking.