# Shoot Responsibly

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## Background Problem

When it comes to weapon safety, people currently have to visit a gun range, rent a weapon, buy ammunition, and practice weapon safety with a live weapon. Before ever firing the trigger, the person has to learn how to use the weapon, which is a risk to them and others.

The risk of learning weapon safety on a live firearm is unecessary when current technology allows the use of virtual worlds and simulations in to solve problems with minimal risk.

## Solution

By creating a virtual gun range, we have allowed people the option to learn weapon safety from the safety of their own homes using a virtual reality headset and hand peripherals connected to one's computer.

The simulation walks the user through the basic steps that a range instructor would walk a new pistol user through, all without needing a person to be with them. By the end of the simulation, the user has been trained how to hodl a firearm, how to load it, how the safety switch works, and how to fire it.

## Tools Used

Unity to create the virtual world

Oculus Rift virtual reality headset

Razer Hydra hand peripherals

## Virtual Environment



Hold the magazine under the pistol to load the weapon.

## User Studies

Our method for testing the results of our gun range simulation is to form two groups and perform their real-life results with an air-soft gun. They will be instructed to properly fire and reload the pistol, and the results should show that both groups perform the same level of gun safety comprehension.

**Control Group:**
Users that already have gun safety experience from a gun range instructor.

**Expiremental Group:**
Users that first performed our gun safety simulation: