

# LAB 3

## PART 1

In this lab, we will use the survival shooter game developed in assignment 1 and make it compatible with a VR headset.

Make sure that you have a mobile phone, USB cable and Google cardboard with you.

Follow the steps below.

1. Download the unity package for [VR](#) (v1.110.0)
2. In Unity, go to Assets->import package->Custom package and select the unitypackage downloaded. Click on Import.
3. Go to Edit->Preferences->External tools and specify location of Android SDK
4. Go to File->Build settings and select Android. Click Switch Platform.
5. Remove the players' mesh and the animation.
  - a. In the Hierarchy window, go to player->player and disable it (un check it in its inspector tab on the right)
  - b. In root 'Player' gameobject, disable Animator and the Player Movement script from the inspector tab.
6. Shifting the camera
  - a. Change main camera from orthographic to perspective from the inspector tab
  - b. Move the Main Camera to the eyes of the player. The view from camera should look something like this-



Make the Player gameobject a child of Main Camera.

7. Move Player gameobject a child of main camera. This makes sure that player (and the gun) rotates whenever the camera rotates.
8. Display score and life
  - a. Change render mode of HUDCanvas to world space. Move the canvas such that it is in front of camera. This should be a child of the main camera.
9. Add VR camera

- a. In the project window, go to GoogleVR->Prefabs and grab the "GvrEditorEmulator" prefab and drop it in the scene. This will rotate the camera whenever the headset rotates.

#### 10. Build game

- a. Go to File->Build settings->Player Settings. On the right side, go to the 'Other settings' tab. Check 'Virtual Reality supported', set 'minimum API level' to 19 and 'Color space' to 'Gamma'.
- b. In 'virtual reality SDK's', add Cardboard.
- c. Click on 'Build'. An apk file is generated. Run it on your mobile phone.

In case of any error, check the console tab.

#### PART 2

In this part, create a menu which allows you to select which level to play. There should be three levels-

Level 1: Only Zombunnies

Level 2: Zombunnies + Zombears

Level 3: Zombunnies + Zombears + Hellephants

[This tutorial](#) explains how the reticle can be used.