

**STUDENT PLAGIARISM DISCLAIMER FORM**

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**Signed:   Deniels Voitkevics**

**Dated:  24/12/2021**

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# Intro

This project that I have been working on was on the theme of Global Warming. It was initially very difficult to come up with any ideas for a game to grab the players attention. After a while I came up with characteristics that I think must be met in order to have a fun and successful gaming experience in Virtual Reality. So, I came up with a game that allows the player to teleport or walk around the map picking up rubbish that was left there by the campers the night before and throwing the rubbish into basketball hoops that are scattered all around the map.

Senses: A player must use different senses all around them to feel like they are engaged with the world such as hearing the environment, seeing the objects and being able to walk around.

In the class today I will demonstrate the senses characteristic that I have started with.

## Senses

## Visuals

The biggest part of Virtual Reality is trying to trick the brain into thinking that what it sees and hears is all real. The easiest way of starting this was to just import different assets from Unity Store and other websites. Each of these objects were made to be grabbable by the player. This was done by adding an XR Grab interactable component to each trash. An issue I encountered often was the bottles grab point being all wrong, the way I fixed this probem was by creating a child object and placing it where I wanted the bottle to be grabbed. Then adding that object to the attach transform.Graphical user interface, application

Description automatically generatedA screenshot of a video game

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## Sounds

I added sound next by adding the AudioClip property and assinging an MP4 to it. I added this property to the leaves of the tree so that the player can hear the birds chirping and leaves swaying above him all around the map as well as added water sound to the river. These sounds were left on Play on awake and on loop in the Audio Source with Spatial Blend being dragged to 3D to get the most imersion out of it.Graphical user interface

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## Movements

The movements were done by in two ways, first one was by adding a continuous move provider and to my XR Rig and assigning my controllers to it so that the player can move around the map using the joystick. Second method was by adding the teleportation provider to the XR Rig which allows the player to teleport onto teleportation anchors that are assigned to the hexagon shaped ground tiles using a controller that has a pointing ray with animated reticle on it.

Difficulties with the continuous movement was that the player kept clipping through the ground and kept falling over when dropping down from a higher ground, the fix for this was by implementing a small box collider on the XR rig and also turning off the z movement too.

Graphical user interface, text, application

Description automatically generated Graphical user interface, text, application

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##### Conclusion

Overall, I think the game so far looks well visually and engages the players senses to help them immerse into the world of virtual reality, I will have the reward and competition characteristic done for the next demonstration in class.