Bi-Weekly Report 4

AR Portal for GOSH DRIVE

Team 36

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Overview:

We have continued research into ARCore and Unity. We created the first app prototype which can detect planes and generate an AR doorway.

We divided the project into four main parts, including how to generate the AR room and objects, the algorithms for object interaction, the 360-degree video, and the web app which users can edit room layouts. This week, we researched some possible solutions for exporting room layouts from the web app and import them into the app. We will continue to carry out research on these topics.

Tasks Completed:

We have retrieved a phone that supports ARCore from the CS department, so in total, we have two phones to test our app as we make progress.

We created a shortlist of free assets from TurboSquid and CG Trader. We also created a few simple textures to apply to the walls of the room. These will allow us to properly develop the code for the room generation and the object placement.

Planned tasks:

- Continue to work on the project website

- Research appropriate file format for importing/exporting a room configuration, including objects in the room and the room layout

- Research possibility of importing user provided 3D model assets at runtime

- Create parser script for the map file format

- Research appropriate technologies to create a room editor web app for users to create custom room configurations in a drag-and-drop fashion

- Experiment with triggering event calls using ray-cast activated hit-sphere and hit-box

- Arrange a meeting with the client to discuss possible solutions

Client Meeting:

We plan to discuss possible experience delivery solutions with the client. To see if our solutions meet their expectations.

We also tried to lend a phone from the client. Unfortunately, they do not have more phones that are available currently.

Personal Reports

Yin Long Ho

I have researched some possible solutions for the customizing room feature. I am experimenting with using json file to store the room configuration. Json file is commonly used for configuration purpose and it can be easily created by a web app or load by Unity. I am also creating scripts for editing and loading room data.

Chirag Hegde

I have continued studying unity and I have also built up a library of open-source models for use in the application.

As a mobile phone capable of running ARCore has been acquired, I have also begun work with, have started to construct the basic AR portal, leading to an empty room.

Haonan Zhang

I've continued to familiarise myself with Unity and the videos from last time. I have also started planning the contents to upload to our eventual website which is currently in progress. Once we have made further progress, we will schedule another meeting to receive feedback and to check if the project corresponds to the brief.