

MST Google Project 2 – 04/03/16

Daniel Eldar, Carla Hyenne

Overview of previous weeks

Since our meeting before reading week, we have been individually working on our designated packages. Our progress has been slowed by Scenario Week 4, during which we did not meet. We were mostly focused on implementing the map functionality and linking the sensors from the drone to the front and back-end.

Furthermore, Hekla presented our project with a poster and a pitch at the Digital Health Conference (March 2nd), for which we tied for 1st place.

Meetings

02/03/16

Digital Health Conference:

Garrett May
Hekla Helgadóttir
Dr. Kostkova

04/03/16

Attendees:

Garrett May
Hekla Helgadóttir
Carla Hyenne
Daniel Eldar

Plan for the upcoming weeks

The catch up meeting allowed us to catch up on each member's' individual progress over reading week and scenario week. We defined a list of priorities, in this order:

- Collecting sensor readings and transferring them to the Google Cardboard
- Streaming a video inside the Google Cardboard
- Controlling the gimbal with head movements
- Collecting GPS coordinates from the drone and transferring them to the backend to render an areal map to the Google Cardboard

- Plotting landmarks and GPS location on the rendered map
- Include the functionality to edit or add markers to the map database

Work Packages Completed

Carla Hyenne

Over the last two weeks, more specifically reading week, I have been working on implementing the Open Street Map (OSM) API to use within our app. We will be rendering the map version of what the user sees on the camera from the drone. This involves extracting data from an OSM map using GPS coordinates from the drone. To query the OSM data we use these coordinates, along with attributes (for example, 'water point', these attributes will be rendered as markers on the map). Then a .osm data file is retrieved, and I am now working on converting it to a JPEG image that can be displayed on the UI.

Daniel Eldar

Over the last two weeks I focused on researching projection from a camera onto 3D space and mapping an image onto a trapezoid in 3D space to accommodate the functionality whereby we will show areas of the map with an arrow or some indicator on them in 3D space, this will allow us to have a more helpful display of information in the cardboard helping the user of the application to navigate around the world where the drone sees it and detect point of interest faster than they would do without it. I prototyped it on a laptop and now need to port it over to Java so that it can be used on the phone and tested thoroughly using unit testing.