

Team Mahogany Weekly Status Report

Week of 3/26/18(1)

Team

- Elyse Cooper, Kevin Dorosh, Ryan Stocking, Richard Preston

This Week

- Communicated with Warren to build the hardware for accessing the memory card addition
- Parsed the image transmission in packets
- Adjusted receiver and transmitter Arduino code to break the image up and receive the image in these packets and write to a data file on a computer
- Kevin
 - Switched from WebODM to JOSM due to buggy open source changes introduced in new version
 - Added code to pre-load a map of Tufts and implement disaster response monitoring

Next Week

- Working to separate the pins for the transmitter and the SD card within the Pro Mini so there is adequate current to each
- Reading and transmitting a full image to test limitations of transmission and data loss
- Kevin
 - Implement adding another layer from jpg
 - Change the layer to read the jpgs from serial USB connection rather than current filesystem

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Week of 3/26/18 (2)

Long Term

- Finalizing a recovery script to reproduce the image at the receiver from the individual data packets

Critical Obstacles

- The SD hardware for wiring between the camera and the Arduino may fail due to the data rate or communications protocol
- Post winter break codebase change from WebODM to JOSM limits the scale of our final GUI

Risks/Contingencies

- If the hardware fails to work we will be pivoting the project to demo the image transmission and creating documentation for further work and areas that we have seen to be potentially helpful
- We will then demonstrate the conceptual goal of producing the hardware and discuss what limitations must be overcome for that solution to work in the future
- Plug and play will prove difficult – fortunately the poster session should force us to try that before the final demonstration is due