

## sdmay18-25: Autonomous health monitoring of transportation infrastructure using unmanned

### Week 8 Report

November 4 - November 10

### Team Members

Nathan Conroy — *Software Lead*  
 Quade Spellman — *Meeting Facilitator*  
 Kevin Yen — *Hardware Lead*  
 Rishab Sharma — *Report Manager*  
 Isaac Bries — *Test Engineer*  
 Molly Hayes — *Meeting Scribe*

### Summary of Progress this Report

This weeks was the final week of ironing out the drone frame parts, including batteries, that needed to be purchased. We were constantly talking to each other and our client to make sure everything was fully in order, like if the price and specifications are as per the project requirements. After these talks we have sent an email to ETG, who will approve the purchase of our parts and ask our client for accounting number, then in a few days or weeks we will get these parts back. Some other progress that we made was to decide specific hardware and software related jobs that each of us could handle, and wrote it down in GitLab. We assigned task for each of us to research so that we can start preparing for when the parts arrive then we can start coding for data capture and building.

### Pending Issues

The pending issues are still to find out if there is a cheaper option for our Lidar sensor. We also need to start ironing out whether we need to build our gimbal or to buy one with the specific camera. We all also need to get familiar with drone coding, C++, and other technical aspects to improve our skills to build our project while our parts are being delivered.

### Plans for Upcoming Reporting Period

The plans for the upcoming period is to get prepared to receive our parts and start researching on our specific hardware and software related jobs that we will be performing as set by our group in GitLab.

### Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Nathan Conroy	Confirmed parts list, verified parts list. Looked at Ardupilot code, and how it schedules tasks.	4	53
Quade Spellman	Researched camera lens. Looked into what size lens would be best fit for thermal camera. Looked into cost/benefits of radiometric readings with thermal camera	3	31.5
Kevin Yen	Began learning Solidworks and started	15	47

	creating various gimbal prototypes. Researched various types of gimbals and small form factor cameras.		
Rishab Sharma	Helped confirm the parts list. Started learning C++, and watched the webinar that our client told us is important to understand our project.	5	40
Isaac Bries	Began learning how the virtual testing environment ArduPilot functions. Confirmed updated parts list with client to ensure it still met their needs.	4	46
Molly Hayes	Continued camera and gimbal research. Met with client to confirm parts order. Updated website.	4	35.5