

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

### Week 9 Report

November 11 - November 24

### 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 is the week that we sent the initial order of parts that needed to be purchased. These are the main drone parts that we will assemble to properly build the drone that meets our project requirements. We sent these requests through ETG and will most likely get the parts after Thanksgiving break.

### Pending Issues

The pending issues are still to find out if there is a cheaper option for our Thermal 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. We also need to ask out client again, to make sure that the LiDar sensor is not that imperative to our project.

### Plans for Upcoming Reporting Period

When the parts that we order start to arrive we can start building them if there is time. We also would like to settle on the final choice for the HD camera, Gimbal, and thermal sensors before we leave for break.

### Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Nathan Conroy	Worked with ETG on parts ordering. Met with team to help choose thermal sensor.	2	55
Quade Spellman	Had to redo some research into thermal cameras as our recommended thermal camera, the Flir Vue, was no longer being offered. Contacted Flir employees to get more detailed information about the differences between our next two choices the Flir Vue Pro and the Fluir Vue Pro R.	2	33.5
Kevin Yen	Helped assemble drone frame. Researched addition parts for drone( camera and video	6	53

	splitter.		
Rishab Sharma	Helped decide and researched more about the camera and thermal sensors. Researched on what the drone regulations are for flight, and general use.	5	45
Isaac Bries	Started to get comfortable using the ArduPilot software environment. Attempted to get the Software In The Loop (SITL) environment to run flight simulations of our drone without needing any hardware.	6	52
Molly Hayes	Continued camera research. Communicated with client about cameras.	2	37.5