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

### Week 3 Report

September 16 - September 22

#### 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*

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#### Summary of Progress this Report

This week we met our client and asked him most of our pending questions, and got a lot of great feedback. We also met one time this week and discussed on how to work on our project plan, and divided up the work evenly to submit by the end of this week. We also discussed our research topics and decided how to set up our website.

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#### Pending Issues

The pending issues that we have is decided which parts we need to pick for equipment required to add to drone like the sensors, cameras, gimbals, etc.

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#### Plans for Upcoming Reporting Period

Finally talk about all the research we did about the sensors and cameras. We should decide the best options, and let our client know which exact piece of technology we need.

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#### Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Nathan Conroy	Attended all meetings this week. Furthered research lidar systems, but waited till meeting with client to better understand what they are looking for. Started research on flight controllers, and the sensors required for flying. Researched electronic speed controllers (ESCs), as well as CAN, PWM. Started researching DJI's SDK and DroneCode. Started work on project plan.	9	20
Quade Spellman	Attended all meetings and wrote project plan challenges section. Also did research on hexacopter vs fixed wing drones and research on thermal cameras for drones.	4	11.5

Kevin Yen	Was unable to attend meeting with client. Researched various pre-built frame and drone flight control systems.	3	10
Rishab Sharma	Was present at the group meeting and the client meeting. Worked on researching for different HD cameras that can take quality pictures and can be used on a UAS. Helped complete the project plan, and specifically worked on the first two sections. Lastly, I worked on completing the weekly report.	5	13
Isaac Bries	Attended client meeting, and began researching thermal and visual imaging technologies. Started the process of cost v performance comparisons to find which sensors will best fit our application. Finished contribution to the first version of the project plan.	3.5	11
Molly Hayes	Attended all meetings and performed meeting scribe duties. Also set up links and pages on website and worked on project plan.	4	11.5