

Group number: 1705

Project title: Drone Energy Delivery

Client &/Advisor: Geiger/Chen

Team Members &/Role: Dustin Reed: Communication Justin Howe: Team Lead, Jeffery Schons, Chidike Ubani: Webmaster, Eric Himmelblau, Avanish Kuntla

o **Weekly Summary**

We modularized parts of the common app to control the drone and aimed to incorporate these modules with 1-2 weeks.

o **Past week accomplishments**

- Dustin Reed: Created the base of an app to work with DJI SDK, studied and figured out DJI SDK, planned app to create and run waypoint missions
- Avanish Kuntla: Created an app that gets current location of drone and continuously displays phone's location.
- Jeffery Schons: Worked on image processing with Open Cv
- Justin Howe: Got the app working with the DJI SDK and authenticating through their servers, am able to connect to drone and give basic commands.
- ...

o **Individual contributions**

<b><u>NAME</u></b>	<b><u>Individual Contributions</u></b>	<b><u>Hours this week</u></b>	<b><u>HOURS cumulative</u></b>
Dustin Reed	Created the base of an app to work with DJI SDK, studied and figured out DJI SDK, planned app to create and run waypoint missions	6	46
Avanish Kuntla	Created an app that gets current location of drone, continuously displays	6	44

	phone's location, Attended meetings, Studied mobile SDK		
Jeffery Schons	Worked on image processing and learned how to use OpenCV. Attended meetings. Bought materials and made the node	7	41
Chidike Ubani	Attended meetings. Got camera access using openCV for an android app	6	31
Justin Howe	Got comm app to authenticate and connect to drone somewhat reliably	8	44

- **Comments and extended discussion**

App is coming along. We have the start of a working prototype that allows communication with the SDK servers and the drone.

- **Plan for coming week**

- Dustin Reed: Create modular method for waypoint mission creation and execution

- Avani Kuntla: Clean up code on this week's app, continue studying mobile sdk documentation, and incorporate my code into common ap
- Jeffery Schons: Continue work on image processing for the node shape
- Chidike Ubani: Get C++ implementation to process image on the node
- Justin Howe: Get all needed hooks implemented in the drone energy comm app.

○ **Summary of weekly advisor meeting**

We met and discussed individual contributions from the previous week. Our advisors were short on time this week, so we didn't get to talk about much else.

**Grading criteria**

Each weekly report is worth 10 points. Scores will be awarded as follows:

- **8 – 10:** Progress for your project seems to be suitable. Documentation and hours reported by team members are adequate.
- **6 – 8:** There is scope of improvement both in your report and your project progress. Can consult with instructor/TA after class for further inputs.
- **< 6:** Please talk to instructors/TA after class hours about any difficulties that you/your team is facing.