

Weekly Status Report 3

9/17/2018 – 9/24/18

Team 42 – Quadcopter Cameraman
Nate Allen - Report Manager
MirAhbab - Chief Engineer
Isaac Holtkamp - Test Engineer
Alex Nicklaus - Test Engineer
Luke Rohl - Meeting Facilitator/Scribe
Faculty Advisor -Zhengdao Wang

This week's accomplishments

- Communications Protocols (Luke & Isaach)
 - *Agreed on android app and drone communication.*
 - *The android app will turn the any communication into a JSON Object. This will simplify the parameters the drone will need to parse for. Based on received command drone will parse for additional arguments.*
 - *Once the JSON Object has been created it will be serialized into a Byte Array, transmit the length of the array over the wireless median (probably bluetooth), and then transmit the array of bytes. The drone will receive the length of the array, and then parse the array back into a JSON Object.*
- Real Time Systems
 - Began looking into applying Real Time Systems concepts to project
- Further Research into Physical Components (Alex)
 - Looked into alternate tracking sensors
 - Continued looking into drone components
 - Drone build near finalized
- Image recognition (Luke)
 - *Set up Virtual Environment for Image recognition testing*
 - *Followed image recognition tutorial using tensorflow.*
 - *https://www.tensorflow.org/tutorials/images/image_recognition*
- Hardware Document Template (Nate)
 - Created a template for details of hardware components
 - Created a list of pertinent details for each hardware module
 - Provided a sample of a module documentation for use by individuals responsible for filling hardware list
- Components List
 - Continued research on components to choose and compatibility options
 - Defined three possibilities of motor-battery-esc-prop configurations
 - constrained by overall weight and budget
 - Obtained a value for hardware budget constraint at \$370 for this semester
 - Reached out to Zambreno about process to obtain components

- Project Plan (Nate)
 - Milestone summaries
 - Scope
 - Dependency Graph
 - High level project schedule

Planned to accomplish next week

- Image recognition (Luke and Nate)
 - *Identify face in image*
 - *Track face in video stream*
- Complete Hardware module list (Nate, Aamid, Alex)
 - Finish compiling the list of needed hardware
 - Fill document for all hardware listed
- Project Plan (Nate)
 - Break High level schedule down to detailed tasks in Work Breakdown Structure

Roadblocks

- Items that prevented us from completing what was planned

Hours Spend

Team member	Hours This Week	Hours Total
Nate Allen	3	13
Alex Nicklaus	2	19
Luke Rohl	4	15
Mir Ahbab	3	15
Isaac	6	15