

Weekly Status Report 2

Quadcopter Cameraman

sdmay19-42

January 15 – January 30

Aamid Ahabab (Lead Engineer) & Client

Zhengdao Wang (Team Advisor)

Alex Nicklaus (Lead Test Engineer)

Isaac Holtkamp (Web Manager)

Nate Allen (Report Manager)

Luke Rohl (Meeting Facilitator)

This week's accomplishments

Summary

This WSR covers a 2 week period as we are getting everything back in order with the new semester. We spent time reviewing where we left off and pointing ourselves in our new directions. One of the new directions we have officially taken, is to abandon the facial and human recognition as it is too unreliable and the tracking is too sophisticated as well as processing heavy. Instead, we are headed in the direction of FRC where we will use retro reflective tape and a special camera attachment to see our targets.

- Alex
 - Begun work with Boyd lab to work on mounting plates for the motors as they currently do not mount
 - Attempting to get extra Pi working currently having problems with the SD card going to try troubleshoot it with other Pis and SD cards
- Nate
 - Researched Retro Reflective tape
 - Tested and played with some FRC ideas
 - Wrote a camera module file for easy interfacing with the camera
 - Wrote a python script to help configure the mask threshold for rr_tape
- Luke
 - Raspberry Pi and Android App can now communicate over bluetooth
- Isaac
 - Got Raspberry Pi and set it up with our code
 - Worked on establishing communication
- Aamid

Planned to accomplish next week

- Nate

- o Begin re-organizing code since a lot is now deprecated.
- o Research quick algorithms for finding the retro reflective tape on our image.
- o Find and implement a clean method of implementing computer vision with retro reflective tape identification and location
- Luke
 - o Create tutorial for setting up Android and Drone bluetooth communication
 - o Android Bluetooth comms handler, i.e. what to do after a command has been received
- Alex
 - o Continue work with Boyd Lab and continue troubleshooting the Pi
- Isaac
 - o Continue work with communication
- Aamid

Roadblocks

- ~~MultiWii isn't compiling~~
- Problems with rented Pis need to fix
- Group's Flight Controller is powering up but not connecting to PC for MultiWii firmware update

Hours Spend

Team member	Hours This Week	Hours Total
Nate Allen	6	14
Alex Nicklaus	4	8
Luke Rohl	2	10
Mir Ahbab	6	6
Isaac	3	8