**EE CprE SE 492 – MAY1732**

**Crazyflie Swarm Senior Design Team**

**Weekly Report 9**

**3/20-3/27**

**Faculty Advisers**

Phillip Jones

Nicola Elia

|  |  |  |  |
| --- | --- | --- | --- |
| **Member** | **Position** | **Weekly Hours** | **Total Hours** |
| **Nick Robbins** | **Team Leader** | **5** | **143.5** |
| **Ben Nelson** | **Key Concept Holder** | **8.5** | **139.25** |
| **Jake Frazier-Flores** | **Webmaster** | **9** | **132.25** |
| **Grant Manley** | **Key Concept Holder** | **6** | **121.5** |
| **Chengrui Yang (Roy)** | **Key Concept Holder** | **4** | **83** |
| **Cole Beaulieu** | **Communicator** | **6** | **149.5** |
| **Tianxiang Shen (Jesse)** | **Key Concept Holder** | **2.5** | **59** |

**This Week’s Progress**

1. Quads/Camera System

* Tried to do a communications test of the new groundstation, but ran into problems with the camera system.

1. Ground Station/Wifi Systems/Firmware

* Got CF to send out the correct responses to packets it recieves

**Pending Issues**

1. Tune the rates that were given to us by Ian and begin to attempt to fly the quad
2. Full communications stress testing

**Plan of Action**

1. Cole – use the rates Ian’s program spits out and begin tuning and attempt to fly
2. Nick – begin tuning the rates that Ian gives us and attempt to fly Big-Quad
3. Jake – work with Ben and to test Groundstation and firmware
4. Grant – Helping wifi mesh network implementation
5. Chengrui ­– help tune the big quad
6. Tianxiang – solder on new regulators to the prototype boards
7. Ben – Fix whatever the camera problem is and test the new groundstation, continue helping Jake with whatever problems he comes up with

**Individual Contributions**

Cole:

* Monday: 1 hour – meeting
* Wednesday: 4 hours - recollected parameters so that we could recalculate the Kd and Kt values and try to tune the rates and then begin to fly it.
* Sunday: 1 hour – weekly report

Nick:

* Monday: 1 hour - group meeting
* Wednesday: 4 hours – recollecting parameters using the groundstation, so that we can recalculate the Kd and Kt values.

Grant:

* Monday: 2 hours – meeting, and then team meeting
* Tuesday: 1 hour – helping other team members with multiple different things
* Wednesday: 1 hour – working to help other team members again
* Saturday: 2 hours – helping Ben with wifi mesh network

Jake:

* Tuesday: 2 hours – worked on latency testing
* Friday: 1 hour – trouble shooting communication from quad to ground station
* Saturday: 2 hours – trouble shooting communication from quad to groundstation
* Sunday: 4 hours – completed two-way communication and finished latency testing

Ben:

* Monday: 1 hour – meeting
* Wednesday: 1 hour – helped Cole and Nick collect parameters for big quad
* Saturday: 2 hours – tried to do a systems test
* Sunday: 4.5 hours – trying to fix camera system issues and making the ESP code two ways, helping Jake on his crazyflie test

Tianxiang Shen:

* Monday: 1 hour – attended weekly meeting
* Friday: 1.5 hours – helped with soldering the parts on the board and connecting it to the crazyflie

Chengrui:

* Monday: 1 hour – meeting
* Thursday: 2 hours – regulator and esp soldering
* Saturday: 1 hour – reading about tuning PID