**EE CprE SE 492 – MAY1732**

**Crazyflie Swarm Senior Design Team**

**Weekly Report 8**

**3/6-3/10**

**Faculty Advisers**

Phillip Jones

Nicola Elia

|  |  |  |  |
| --- | --- | --- | --- |
| **Member** | **Position** | **Weekly Hours** | **Total Hours** |
| **Nick Robbins** | **Team Leader** | **6** | **138.5** |
| **Ben Nelson**  | **Key Concept Holder** | **5** | **130.75** |
| **Jake Frazier-Flores** | **Webmaster** | **7** | **123.25** |
| **Grant Manley** | **Key Concept Holder** | **4** | **115.5** |
| **Chengrui Yang (Roy)** | **Key Concept Holder** | **7** | **79** |
| **Cole Beaulieu** | **Communicator** | **7** | **143.5** |
| **Tianxiang Shen (Jesse)** | **Key Concept Holder** | **5** | **56.5** |

**This Week’s Progress**

1. Quads/Camera System
* Attempted to recalibrate the values used to calculate kd, were unsuccessful due to some faulty connections so will try again this week.
1. Ground Station/Wifi Systems/Firmware
* Tested two ESPs sending connections to each other and sending setpoints from a fake groundstation to our MATLAB renderer
* Stress testing of the firmware

**Pending Issues**

1. Make sure all the connections are sound on the big quad so we can reattempt the tuning of the big quad after recalculating the Kd constant
2. Begin a full communications test

**Plan of Action**

1. Cole – make sure that the connections are soldered together and snug so that we can recalculate the parameters used to make the Kd and attempt to model again
2. Nick –Use alternative method to find a more accurate kd value
3. Jake – work with Ben and to test Groundstation and firmware
4. Grant – Helping with Big quad work
5. Chengrui ­– solder on new regulators to the prototype boards
6. Tianxiang – solder on new regulators to the prototype boards
7. Ben – testing the entire groundstation

**Individual Contributions**

Cole:

* Monday: 1 hour – meeting
* Tuesday: 5 hours - trying to recollect parameters for the Kd value of the big quad. Ran into many problems trying to connect with Ian’s groundstation. Think we may have found the problem, another group mate fixed it.
* Sunday: 1 hour – weekly report

Nick:

* Monday: 1 hour - group meeting
* Tuesday: 5 hours - trying to recollect parameters for the Kd value of the big quad. Ran into many problems trying to connect with Ian’s groundstation. Think we may have found the problem, another group mate fixed it.

Grant:

* Monday: 1 hour - meeting
* Tuesday: 1 hour – working with code for network
* Wednesday: 2 hours – working with Ben

Jake:

* Monday: 5 hours – team meeting, troubleshooting firmware connection code
* Tuesday: 2 hours – turning off radio firmware code and attempting to test only wifi module

Ben:

* Monday: 5 hours – meeting, presentation, and I tested two ESPs sending connecting to each other and sending setpoints from a fake groundstation to the matlab renderer

Tianxiang Shen:

* Monday: 2.5 hours – meeting and prepared for the presentation
* Thursday: 5 hours – soldered the connections and applied the electrical tape

Chengrui:

* Monday: 1 hour – meeting
* Thursday: 5 hours – solder and reconnect all the wires
* Saturday: 1 hour – new regulator testing