**EE CprE SE 492 – MAY1732**

**Crazyflie Swarm Senior Design Team**

**Weekly Report 12**

**4/10-4/17**

**Faculty Advisers**

Phillip Jones

Nicola Elia

|  |  |  |  |
| --- | --- | --- | --- |
| **Member** | **Position** | **Weekly Hours** | **Total Hours** |
| **Nick Robbins** | **Team Leader** | **6** | **167.5** |
| **Ben Nelson**  | **Key Concept Holder** | **11** | **162.25** |
| **Jake Frazier-Flores** | **Webmaster** | **11** | **160.25** |
| **Grant Manley** | **Key Concept Holder** | **7** | **140.5** |
| **Chengrui Yang (Roy)** | **Key Concept Holder** | **4.5** | **92.5** |
| **Cole Beaulieu** | **Communicator** | **6** | **169.5** |
| **Tianxiang Shen (Jesse)** | **Key Concept Holder** | **2** | **63** |

**This Week’s Progress**

1. Quads/Camera System
* Autonomous flight was unsuccessful on big-quad so we began to hand tune the rates to and we are going to try and plug them into the groundstation
1. Ground Station/Wifi Systems/Firmware
* Finished latency tests, and found problems with the communication stack and well as aboard the CF, troubleshooting began.

**Pending Issues**

1. Work with someone like Matt or Ian to help us hand-tune the big-quad because we are unfamiliar with the process besides online forums
2. After the unsuccessful autonomous flight with the new groundstation, troubleshooting is being done on the groundstation, and the CF itself

**Plan of Action**

1. Cole – continue hand-tuning our big-quad and plug those numbers into the groundstation
2. Nick – after we get the rates from hand-tuning plug them into groundstation and attempt autonomous flight
3. Jake – continue troubleshooting communication stack and the UART on the CF
4. Grant – Working on broadcast messaging
5. Chengrui ­– continue to help with soldering
6. Tianxiang – continue to help with soldering
7. Ben – Finish up troubleshooting communication problems

**Individual Contributions**

Cole:

* Monday: 5 hours – meeting, working to fly big-quad manually again, found and conducted set-up for the hand tuning of the big-quad
* Sunday: 1 hour – weekly report

Nick:

* Monday: 6 hours –meeting, worked with the software team to help make sure board was fastened correctly, found and conducted a way to manually tune the Big-quad, continuing to do so.

Grant:

* Monday: 1 hour – meeting
* Tuesday: 1 hour – working with jake and ben on firmware
* Thursday: 2 hours – working on poster
* Friday: 1 hour – Firmware work
* Sunday: 2 hours – working on flashing firmware for broadcast and poster

Jake:

* Monday: 2 hours – meeting, flying big quad
* Tuesday: 1 hour- troubleshooting ground station to quad communcation
* Wednesday: 2 hours – isolating issue with communication stack
* Thursday: 1 hour – troubleshooting new issue with communication stack and ordering new parts
* Friday: 2 hours – continued troubleshooting communication stack and reviewed groundstation code
* Sunday: 3 hour – troubleshooting uart on CF

Ben:

* Monday: 5 hours – meeting, conducting latency tests, flying small Crazyflies
* Tuesday: .5 hour – trying to troubleshoot comm problems
* Wednesday: 2 hours – finishing latency tests, constructing a substitute quad
* Thursday: 1 hour - Still troubleshooting comm problems
* Friday: 1 hour - Still troubleshooting comm problems

Tianxiang Shen:

* Monday: 1 hour – attended weekly meeting
* Sunday: 1 hour – assembling the expansion board, and working on the poster

Chengrui:

* Monday: 4 hour – meeting, worked with the software team to solder the ESP on the new expansion boards