CMPE 195B

11/05/2017

Update for Project ARD

Group Updates:

* **Successfully got the CrazyFlie connected to the Xiro Drone**

Anahit

* Solved cf expansion board problem
* Solved power issues with esc+xiro drone
* Custom cf firmware to enable big quad deck
* Mac osx dev environment produced
* Need to enable big quad deck using px4 firmware

Ali

* Assisted with the connectors and testing the Xiro With ESC and BigQuad expansion deck
* Trouble-shooted Xiro and CrazyFlie with whole Team (ESC needed power wire)
* Assisted with the CrazyFlie Development environment on Mac OS
* Helped with getting the Xiro drone to work with the CrazyFlie BigQuad and ESC
* Took the whole Xiro Drone apart to see what connection we’re going to the Motor
* Researched what signals go into a DC brushless motor for clarification on what connections are needed to the motor
* Assisted with editing Firmware to enable the flag for the Big Quad
* Looked at different ways to flash the firmware on the CrazyFlie

Max

* Researched further drone option documentation
* Prepared for this weeks writing assignment
* Setup CF VM
* [**Video**](https://youtu.be/mrRnQqFHLaM)

Brian

* Installed chassis header wires and molex connectors. Added RTV for electrical isolation.
* Charged LiPO battery to nominal voltage
* Connected LiPO to ESC
* Setup testing configuration for drone core to motor testing
* ID’d missing Vcc wire for ESC power on. No clue as to why this wasn’t included as shipped…
* Assisted with electrical testing of PWM, and gnd signals.
* Made final adjustments, dimensional analysis, and export for drone chassis mount. (READY FOR PRINTING)
* Setup PX4 dev environment on ubuntu
* Ran simulator for intro verification
* Put together new order list

To-Do’s

1. 3D print drone chassis in E10 lab
2. Place order for needed parts
3. Install connectors for core/chassis mate
4. Install firm Vcc wire on ESC (currently jerry rigged aka mcgivered aka barely hanging on for testing)
5. Install parts on Chassis Mount
6. Learn how to send commands from qGC to drone
7. Interface laser sensors with RPis (time permitting)