CMPE 195B

October 01, 2017

Update for Project ARD

Group Updates:

Chapters 1-5 due coming Wednesday, October 4, 2017.

Anahit

* Waiting for second order of parts
* <https://blog.hypriot.com/>
* Looked into web services for RPI video recording/ compression/ upload
* Software for bootloader and firmware is ready to go
  + Beginning second phase of software development
* Need to upload code for documentation
  + All proper software documentation needs to be created

Ali

* Did ABET demo
* Looked over PX4 block diagram to better grasp how to communicate with different modules
* Looked into the GPS module and other GPS modules that will work well with the PX4 flight control software
* Reviewed the Report to see what needs to be done

Max

* Began working on the workbook
  + Chapters 4 and 5 began
  + Chapters 1-3 revised

Brian

* Gave ABET demo and progress update
* Will be doing hardware interfacing as parts show up
* Need to order correct laser sensors
  + Current ones did not contain lense receivers
* Will contact px4 developers for object avoidance code
  + Possible solutions if they do not support:
    - Program RPi to send a HOLD message to the flight controller
    - Then have it provide a series of GPS locations in the direction of shortest path based on laser data
    - I.e if object detected within 15m of flight path in quadrant left front, HOLD flight, raise altitude, if object still exists, provide a gps location using a heading reference as the base location and then offset it to a heading in the quadrant with least or no object. Be sure to reset the GPS to the original location after each object detection so the drone does not get lost. Guide the drone in this way until it reaches destination.