Sightline Capstone Project Meeting

16 January 2019

* We need to schedule time to work with 1500 OEM + SLA 1500 + AR0134. Sightline has the hardware ready for us to use.
* The timeline for the schematic and board layout needs to be adjusted to include the following milestones:
  + Schematic due date
  + Schematic review
  + Layout due date
  + Layout review
  + Ordering components
  + Receiving components
* Discussed Lens hardware – can be bought off the shelf
* When the schematic is closer to completion the hardware manager at sightline will be available to answer questions about layout/ purchasing components
* Discussed whether to use BGA or ILCC package for AR0134 optical sensor. The ILCC package was decided to be best for the project even though it will require more space, we will be able to troubleshoot/debug the circuit without an X-ray.
* Discussed target approach altitudes for testing. Previous tests performed by Sightline outdoors used a target approach of ~100m, for indoor testing this approach would be ~11 ft.
* We discussed scheduling an appointment with Andrew Greenberg to see if we can use the PSAS space to work on/store the quadcopter and equipment as well as to discuss safe indoor testing, and the possibility and benefits of starting a drone club. Tai will email Andrew and schedule meeting for Wednesday January 23.
* Discussed using the Geofence failsafe flight mode for safe indoor flying. This flight mode depends on GPS which is not dependable indoors. Particularly GPS tends to fail in altitude. May be possible with a GPS repeater.
* Briefly discussed range finder precision landing as a comparison to the Sightline visual landing aid. This would be a comparative analysis on paper (no hardware required). What is the range finder’s resolution? Why did they use I2C communication? Etc.
* Discussed learning more about the available ports on Pixhawk Eg. SBUS port
* Discussed data logging with Q-GroundControl and Pixhawk. How do you define/log software errors?
* We need to define team responsibilities for the entire project not just week to week.
* We need to add milestones to the SOW for April/May/June
* Sightline will define the required documentation that will be provided at the end of the project.