**WEEKLY PROGRESS REPORT**

**Sightline Capstone Project**

**Week 3**

**26 January 2019**

**Tai:**

**This week:**

* Build and test SLA hardware test kit which includes:
  + SLA-1500-OEM
  + SLA-1500-FPC
  + SLA-1500-nAB
  + Airborne Camera (which has built-in sensor)
  + 1500 special case for hardware
* Work with Pixhawk 4 which includes update firmware and sensor test.
* Have a problem with Radio Controller, I’m going to discuss with Jeremy on Monday.

**Next week:**

* Finish Pixhawk 4 set up.
* Plan to put Pixhawk 4, quadcopter, and Sightline hardware kit together and run it on Qgroundcontrol.
* Meeting with Jeremy to discuss about the schematic, as well as meeting with Andrew to discuss about UAVs.

**Question:**

Radio controller and pixhawk 4, how they connect together properly?

**Kimball:**

**This Week:**

* Created devices, footprints, and packages in Eagle for the following devices (Uploaded to [Github](https://github.com/phamtaiece/Capstone-Sightline/tree/master/EAGLE%20files) for review):
* AR0134CS Optical Sensor
* DF12B 50-pin SMT connector (male)
* CAT811 Microprocessor power supply
* T3020 Voltage regulator
* SN74AUC1G08 AND gate
* SN74AUC1G17 Buffer
* KC2520B 27 MHz SMT crystal clock oscillator
* Assembled F-450 quadcopter frame
* Continued project research

**Next Week:**

* Finish creating needed devices, footprints, and packages in Eagle
* Begin Schematic
* Finish quadcopter assembly (add power distribution board, Pixhawk 4 + accessories, battery, etc.)
* Research available spaces for quadcopter testing

**Questions:**

None at this time but I will have plenty at the meeting on Wednesday.

**Adel:**

**This Week:**

* Installing QGround Control and check the communication requirement for MAVlink
* Installing jMAVSim simulator for Pixhawk 4
* Checking and understanding Pixhawk 4 scripts commands
* Checking the Pixhawk4 communication requirements for MAVlink
* Learn and start building Pixhawk4 test flight code for simulator testing

**Next Week:**

* In case of a success building Pixhawk4 flight code, adding more to it
* Checking another simulator for Pixhawk4 for the ability of integrate Qground Control
* Test the Gazebo simulator for any enhancement for simulation
* Try in integrate Sightline Pixhawk4 code into the simulator

**Questions:**

* Outdoor and indoor testing requirements