ILLINOIS INSTITUTE
OF TECHNOLOGY

Scarlet Hawk IV

Status Report: April 2016

AIAA - IIT

Summary:

In the past month, we have made some progress, but not too much. The boards came in a little over two weeks ago, and we have begun working on those. The programming has been tested on each of the sensors without being applied to the boards, so once they are on board, we can re-run the same tests. The board assembly is taking slightly longer than expected, but we will still definitely be ready for integration far ahead of time. For now, our immediate goals are to finish putting the boards together and test all systems, then construct in internal structure and get the boards fitted internally.

We did not meet this week and are done meeting for the semester actually, as next week is our finals week. Our current arrangements are such that the people who are staying in Chicago for the summer will continue to meet, and the rest will be invited to either come down for large build days, or simply telecommute. Lastly, we have finalized the PSIP and our list of integration participants, however, we have funding for up to two more members, so if anyone decides to join us before the final PSIP date, we will be bringing them as well.

The individual group progress is reported below.

Upcoming Deadlines:
- May 6th – Last day of finals week
- May 14th – 3D print internal structure
- May 21st – Complete board soldering
- May 25th – Run final tests for summer (ideally)

Our team structure is as follows:

Faculty Advisor: Dr. Murat Vural

Project Manager: James Henry

Team Leaders: Alan Grossman (Structural)
- Melissa Alkan
- Vaishnavi Sreenivash
- Gregory Enriquez
- Ibon Rementeria
- Gina Kapadia
- Noah Griffith
- Jaime Anton

Jacob Freeman (Software)
- Ian Gustafson
- Simon Sai

Kevin Hardin (Hardware)
- Caterina Lazaro
- Leslie Villanueva
- Sergio Gil
- Timothy Bender

Structure:

The FRP structure has been started, but we obviously can't put it on until we have component locations for holes, and the boards are inserted and ready to go. In addition, we are planning to 3D print the structure soon, and we intend to test both PLA and ABS plastic to see how effective each would be for this task.

Hardware:

The hardware team has been moving slowly since we got the boards because finals are coming up. We intend to finish everything after finals week is over and everyone has settled for the summer, because we don't want this project to be too much of a stressor on everyone involved. Once we have the boards soldered, we should be ready to attempt our communication and test our sensors!

Software:

The code for all of the new devices has been completed using the libraries available online. The software team only can wait on the completion of everything else at this point for us to run our final tests on sensors, and our preliminary and final tests on communications. We should have all testing done by the end of May.