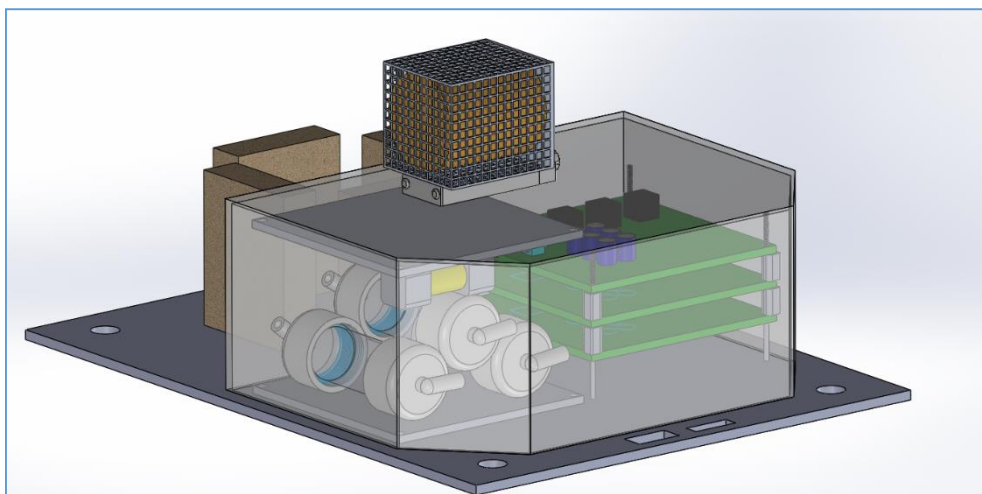


Inter-American University of Puerto Rico
HASP 2014
April Monthly Status Report

During the month of April the Thermal Energy Control & Particle Air Filter System (TECPAFS) team addressed the quotations for the components to be incorporated on the design, and waiting for the arrival of all the components for final manufacture. Starting the procedures for testing and then integration of the components. Also, a vacuum oven is being optimized for a preliminary Thermal/Vacuum test.

Team Activities

1. The Power team (PT) is currently waiting for the components to arrive so they can make the assembly and power tests and generate test data. Also, working on the power system schematic and the power integration with the HASP platform.
2. The Software team (CT) worked to determine the programming for the altimeter, and the program being incorporated on the overall program from the complete payload with the sensors. When the valves and vacuum pump arrives, the program for the complete system control will be tested.
3. The Structure team (ST) has a design ready, only needing the materials for the manufacture of the design. The structure for the polyurethane foam is almost complete, only missing the external structure for the enclosure. The particle air filters is undergoing some SolidWork design changes since theirs only 2 filters to be used and on the design are demonstrated 3 of them.



4. The Thermal team (TT) is working on a Matlab simulation for the temperature distribution on the Phase Change Boxes being exposed to the changing temperatures.

Issues Encountered during Payload Design / Development

1. Administrative problems with the purchase of the Phase Change Materials and other components, such as the heating films.
2. Analyze and optimize the design given the change from small to large payload.

Milestone

The TECPAFS team has been working on the Test & Integration Planning part of the milestones. Manufacturing design is being done as the components arrive.

Current Team Members

For this month's report, there has been some team changes on the TECPAFS project. Here is a structure of the project, advisors, and student leader, the changes have been made to the structure team because of the slow advancement on this part of the project.

