

## OLite Progress Report

April 30, 2010

### Team Activities

#### Progress by Subsystem

- Mechanical  
The mechanical system has completed their primary structure and is awaiting integration with the various subsystems.
- Power Subsystem  
The power regulation board has been redesigned due to noise issues that arose due to having a pair of DC-DC converters that were not synchronized. We have redesigned our boards to incorporate DC-DCs that are capable of being synchronized. These redesigned boards have been received, although due to finals population and testing will be delayed until next week.
- CDH Subsystem  
The CDH system has gotten their rev 2 board, the board has had linux loaded on it and CDH is now testing other hardware on their board. The next step will be to integrate with the other experiments and subsystems.
- Comm Experiment  
The flight and flight spare versions of the communications board are populated, testing of the 900 Mhz transceiver on the flight board has shown promising results. Testing of the 432 Mhz transceiver and both on the spare are planned for the next week.
- Power Experiment  
Power Experiment has demonstrated they can track the peak power on a single solar panel. Work remains to add this capability for the second panel and to demonstrate transmitting data to CDH.
- GNC Experiment  
The attitude determination algorithm is in the process of being tested and debugged using simulated data and is awaiting integration between GNC and CDH to demonstrate the correct operation of the algorithm.  
  
Circuit boards have been received. The main GNC board has been demonstrated although the sun sensor boards are having problems with directly measuring the current from the sensor. This is something that worked on breadboard models, so

### Design/Development Issues

After hearing warnings about our antenna size being too large for underneath the gondola, we have moved back to hanging beneath our payload. Is there any restriction on how far below the payload we can hang? What is the distance from our payload to the ground or something else we may interfere with?

### Milestones

The OLite team has done sufficient board level testing to move to integrating subsystems. Over the next week, during the students' finals week, they will integrate the systems together and proceed with testing at the system level including thermal testing.

## Current Leaders

Project Management	Allen Kummer
Systems	Phil Weir
Mechanical	Corey Friedenberger
Power Subsystem	Alex Hackett
Command and Data Handling Subsystem	
Hardware	Eric Root
Software	David Zhang
Guidance Navigation and Control Experiment	Alex Malone
Communications Experiment	
Radio	Steve Devore
Antenna	Scott Pfeiffer
Power Experiment	Matthew Anderson

\*Full list of participating students available on request

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