

The UMD HASP team has spent the majority of January revising designs, acquiring new team members, and considering long lead components for the payload. Our proposal for funding for the project will be presented by our faculty advisor to the Maryland Space Grant on February 4.

1. Activities of Team Members

The activities of our team members have been spread out in January until our first meeting this past week. The team had its first weekly semester meeting on January 27 to discuss mechanical system requirements and logistics. The meeting was to bring members who had been away over winter break, December 20 through January 24 for UMD, up to speed on the system, discuss the progress of the current design, and go over the concerns received in the payload review. During January, a detailed projected budget for the project was made and letters to several hard drive companies were drafted in order to acquire the solid state hard drives needed by the payload. One more team member was recruited to work on the mechanical payload release system.

2. Issues Encountered During Payload Design

There were several issues encountered during the preliminary payload design, particularly concerning the detachment method. The mechanical release mechanism has been the main focus over January and into the semester. Several methods were discussed for testing of the system and model fabrication was recommended by our faculty advisor earlier in the time line. As one test method for parachute deployment and looking at drop trajectory, the payload will be released on one of the UMD flights and videotaped. This way, the trajectory of the payload can be checked for drift to the sides and thus any interference with surrounding objects. Another team member is also currently needed for electronics design. We are still looking for someone with the experience in this type of project for recruitment.

3. Milestones Achieved

Due to absence of team members for winter break, we are still working on desired milestones. Projected milestones for February include:

- Ordering of long lead components, such as PC104 CPU and solid state drives, and structure
- Recruitment of final team member (s)
- Preliminary mechanical system testing with simple prototypes
- Completed sets of requirements for all systems

4. Current Team Members and Leaders

The current UMD team consists of the original members included in the project proposal and one team member addition. The current team structure is depicted below:

