

Team Orion Monthly Status Report

- 1) Current team members and leaders:
 - a. Victor Fernandez-Kim: Project Manager
 - b. Stephen Harb: Software Manager
 - c. Joshua Collins: Electrical Manager
 - d. Allen Davis: Mechanical Manager
 - e. Jordan Causey: Mechanical Assistant
 - f. Brad Landry: Mechanical Assistant
 - g. Jack Brady: Electrical Assistant
 - h. David Bordelon: Software Assistant
 - i. Brian Stutzman: Assistant Project Manager and Electrical Assistant

- 2) Activities of team members:
 - a. Currently the team is working on revising issues found in Preliminary Design Review (PDR)
 - b. New members catching up on completed work by original Team Orion (reading all HASP interface and preliminary design documents)
 - c. Further research into material and component design

- 3) Issues encountered during payload design/development:
 - a. Major issues
 - i. Telemetry formatting and software design need reworking
 - ii. Mechanical design does not consider wire management and must be reworked
 - iii. Electrical system is missing specifics on “daughterboard” mentioned in PDR and requires several shields (including power regulation) which have not been looked into.
 - iv. Detailing a gnomon system
 - v. Establishing a pointing accuracy on solar-tracking system
 - b. Minor issues
 - i. PDR document formatting and missing sources
 - ii. Potential issue with HASP gondola reflections (may require optical baffling)

- 4) Milestones achieved:
 - a. Passed PDR
 - b. Recruited more working members
 - c. Implemented team organizational system

- 5) What will be worked on in **March**
 - a. Continue revising issues found in preliminary design
 - b. We will focus on solar tracking hardware/software development and testing
 - i. Testing will mainly be developing and calibrating hardware
 - ii. Mechanical will assist in this process by creating simple test beds (most likely made of polystyrene) to emulate a “prototype” electronics bay and solar tracking hardware
 - iii. Create an updated list of required components and materials to estimate total cost
 - c. Acquire funding from LaSpace