

# March 2014 HASP Monthly Report

## ASU - HAVEC

### 1) Issues encountered during payload design / development:

- Changed modules to ones with more community support
  - Adafruit Ultimate GPS Logger Shield
    - Rated to altitude of 40km
    - <http://learn.adafruit.com/adafruit-ultimate-gps-logger-shield/faq>
  - Adafruit Data Logging Shield
  - Adafruit 9-DOF IMU Breakout
- Changed to using two different cameras due to back order
  - Canon ELPH110 with notch filter and hardware adjustment
  - Canon SX260 with notch filter and hardware adjustment
- Changed DC-DC converters from variable to fixed due to cost, weight and volume inefficiencies

### 2) Activities of the team members:

- Downloaded respective example software
- Customizing source code for our payload
- Designing camera mounting brackets

### 3) Milestones achieved:

- Components electrical supplies obtained
  - Building materials still enroute
- Payload system specializations designated
- Software development started

### 4) Evaluation of progress:

Ordering and shipping took much longer than expected. Our advisor helped to shorten our largest hurdle, software development, by changing modules to ones with source code readily available. This should keep us on track, maybe even put us ahead of schedule. Next week we should receive our last shipment and be in full swing. This should put us right on schedule to give our advisor a fully operational demonstration just before the PSIP deadline.

5) Current team members and leaders:

Demographic Legend: [Ethnicity] [Gender] [Age] [Major]

\*\* Some members did not feel comfortable disclosing all demographics

Advisor: Srikanth Saripalli <[Srikanth.Saripalli@asu.edu](mailto:Srikanth.Saripalli@asu.edu)>

Leader: Michael Mein <[mmein@asu.edu](mailto:mmein@asu.edu)> Arduino Interface

White Male 24 Astrophysics

Sepideh Jafarzadeh <[sjafarza@asu.edu](mailto:sjafarza@asu.edu)> Thermal Management

Persian Female 23 Earth & Space Exploration

Itxier Meziani <[imeziani@asu.edu](mailto:imeziani@asu.edu)> Orientation Detection

Female Earth & Space Exploration

Ahmet Deran <[Ahmet.Deran@asu.edu](mailto:Ahmet.Deran@asu.edu)> Power Distribution

Turkish. Male. 39.

Exploration Systems Design & Aerospace Engineering.

Michael Ayual <[Michael.Ayual@asu.edu](mailto:Michael.Ayual@asu.edu)> Data Storage

Male Earth & Space Exploration

Nicholas Aldana <[nickaldana@gmail.com](mailto:nickaldana@gmail.com)> Mech. Design Position Detection

White Male 27 System Design

Nicholas Knaus <[32lateralus@gmail.com](mailto:32lateralus@gmail.com)> Serial Communications

Male System Design

Weston Wands <[Weston.Wands@asu.edu](mailto:Weston.Wands@asu.edu)> Camera Operations

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