



# HASP Monthly Status Report

**Report Month:** March 2023  
**Submitted by:** Melissa Rocha  
**Submit Date:** 02/ 24 / 2023  
**Institution:** College of the Canyons  
**Payload Number:** 2023-09  
**Payload Name:** Sol Seeker

## I) Activities During Previous Month:

- Campus wide awareness event: Discovery Day- invited by the College of the Canyons Manufacturing Program to connect with prospective students and showcase NASA HASP payload as well as other payloads flown by the team

## II) Issues Encountered:

- Grounding cables, underestimated how much power Raspberry-Pi needs
- Regulators incompatible with system, not able to get enough power, couldn't put into parallel
- Vendor sent incorrect parts-received an Off-Axis Guider instead of a Mini Guide Scope
- Delay in purchasing DC-DC converters, 2<sup>nd</sup> more refined Guide Scope, and Adjustable Step-down Voltage Regulators
- Delay in Tooling-U safety course required for team members to begin machining structure
- Configured prototype circuit design to power Teensy, Raspberry Pi, & motors
- Tested code to capture images on monochrome guide camera with Raspberry Pi

## III) Milestones Achieved:

- Reworked electrical plan to ensure flight computer has enough power
- 3D printed telescope mount for prototype testing
- Received electrical parts (Teensy 4.1, Stepper Motor Drivers, and cameras) and began initial testing

## IV) Plans for the Coming Month:

- Test components as they arrive and continue with prototype testing
- Integrate electrical sub-systems and build flight computer
- Completion of Tooling-U safety course by team members planning to do work in the machine shop and complete the advanced manufacturing of HASP metal parts and structures
- Continue to work with The Local Group Amateur Astronomers on the construction and testing of the tracking telescope
- Complete Preliminary PSIP & Security Clearance Documentation for both sites, for July testing and September launch

## V) Other Comments or Questions for HASP Management:

- When will the new PSIP template be available?

## VI) Team Composition and Organization:

Name	Start Date	End Date	Role/Academic Year	Race	Ethnicity	Gender	Disabled
<b>Project Management</b>							
Teresa Ciardi	Fall 2015	Present	Logistics & Science Faculty Advisor	White	N/A	Female	No
Greg Poteat	Winter 2016	Present	Machining Faculty Advisor	White	N/A	Male	No
Amy Foote	Fall 2015	Present	Recruitment MESA Director	White	N/A	Female	No
Melissa Rocha	Fall 2021	Present	Project Manager Undergrad	N/A	Hispanic	Female	Yes
Maranda Laws	Fall 2021	Present	Assistant Project Manager Undergrad	White	N/A	Female	No
<b>Engineering Team</b>							
Clarissa Zuo	Summer 2022	Present	Mechanical Lead High School/ Undergrad	Asian	N/A	Female	No
Derek Peraza	Summer 2022	Present	Electrical Lead Undergrad	N/A	Hispanic	Male	No
Drake Lovelady	Summer 2022	Present	Coding/Software Lead Undergrad	White	Hispanic	Male	No
Terry Guerrero	Fall 2021	Summer 2022	Mechanical Team Member Undergrad	White	Hispanic	Female	No
Miguel Paz	Fall 2022	Winter 2023	Mechanical Team Member Undergrad	N/A	Hispanic	Male	No
Isaiah Romero	Fall 2021	Present	Software Undergrad	N/A	Hispanic	Male	No
<b>Marketing / Media</b>							
Marni Kallestad	Winter 2022	Present	Marketing Lead Undergrad	White	Hispanic	Female	No
Gabriel Jimenez	Spring 2022	Fall 2023	Marketing Co-Lead Undergrad	N/A	Hispanic	Male	No
Tawshia Chowdury	Winter 2023	Winter 2023	Marketing Co-Lead Undergrad	Asian	N/A	Female	

Arely Castillo	Spring 2021	Present	Marketing/Media Team Member Undergrad	N/A	Hispanic	Female	No
<b>Mentor Team</b>							
Sarah Boyer	Fall 2021	Present	Mechanical/ Electrical Mentor Undergrad	White	N/A	Female	Yes
Shawn Ford	Winter 2019	Present	Mechanical/ Electrical/ Software Mentor Undergrad	White	N/A	Male	No
Patrick Gagnon	Summer 2021	Present	Mechanical/ Project Management Mentor Undergrad	White/ African-American / Asian	N/A	Male	Yes
Brandon Gelfand	Fall 2016	Present	Electrical / Software Mentor Undergrad	White	N/A	Male	No
Daniel Larimer	Spring 2019	Present	Mechanical/ Electrical Mentor Undergrad	White	N/A	Male	No
Andrew Nowakowski	Spring 2022	Present	Electrical/ Software Mentor Bachelor's Business Management & Computer Science	White	N/A	Male	No
Svarun Soda	Fall 2021	Present	Software/ Electrical Mentor Undergrad	White	N/A	Male	No
<b>Consulting Team</b>							
The Local Group Astronomy Club of Santa Clarita Valley, California							
Dave Flynn	Fall 2022	Present	Lead Engineering Consultant	White	N/A	Male	No
Glenn Basore	Fall 2022	Present	CAD design Consultant	White	N/A	Male	No
Abhishek Khanna	Fall 2022	Present	Astrophotography Consultant	Asian	N/A	Male	No
Robi Mukherjee	Fall 2022	Present	Mechanical Consultant	Asian	N/A	Male	Yes
Vahid Talaie	Fall 2022	Present	Software Consultant			Male	No