

Week of 01/27/25 - Week 2:

Team Level Progress:

- Deep Dive completed
- Build V2
 - Blocker: we would like to have more completed boards for assembly
 - Swapped to shorter rods and unthreaded spacers
 - Deployables should fit now, ready for burn wire testing
 - Further documenting assembly procedure
- Whole team did TVAC training, ready to perform testing in vacuum (still need LN2 training for temp testing)

Individual Progress:

- Crystal Scott -
 - Assembled prototype build 2 in the lab and identified issues & resolutions (pivot to unthreaded spacers, correct rod length)
 - Test fit new camera lens, XY boards in CAD & reported measurements to GNC
 - Reaction wheel mount CAD
 - TVAC training and Deep Dive slide preparation
- Liz Zhang -
 - Worked on troubleshooting assembly procedure
 - Working on finalizing full CAD assembly with all new hardware & boards
 - Began figuring out TVAC procedure
 - Ordering more copies of chassis
- Eric Grynberg -
 - Updated the Z+ board model in CAD
 - Deep Dive presentation prep and TVAC Testing Training
 - CAD Heat Sink Update
 - Machined parts needed for new assembly
 - Working on getting thermal update to know if we need heat straps.
- Clara Devaux
 - Worked on troubleshooting assembly procedure and documentation
 - Worked on third build, switched threaded spacers with unthreaded ones and cut rods.
 - Issues:
 - Spacers between heat sink and Jetson board are loose (9.7mm spacers and the distance between heat sink & board is 9.705mm + tol add up.
 - No need for nuts but need to make sure everything is stacked and locked together

- Do we want to screw the Jetson to the heat sink or just use spacers (or both?)
 - TVAC procedure training
- Kiera Boucher
 - Tested helicoil fit
 - Deep dive and presentation
 - Worked on troubleshooting and assembly procedure
 - Worked with Clara on third build and noted issues
 - TVAC Procedure testing
 - CAD of 1U exolaunch exopod
- Keerthi Koganti -
 - TVAC procedure Training
 - Drafted up Deep Dive Presentation

Week of 01/20/25 - Week 2:

Team Level Progress:

- Build V1 took place, identified many issues including
 - Chassis has stripped screws.
 - Missing a couple of xy boards.
 - Threaded spacers might be bad, let's get non threaded spacers.
- We learned how to make Branches and add things to GitHub!
- We will be ready for Deep Dive next week.

Individual Progress:

- Crystal Scott -
 - Assembled a mock CubeSat prototype in the lab
 - Identified assembly errors and important considerations to improve future build times
 - Closed issue - ordered spacers
 - In process of designing finalized reaction wheel mount for 2.5 in HDD
- Liz Zhang -
 - Researched torque specifications for assembly
 - In process of finalizing full CAD assembly with all hardware
 - In process of figuring out TVAC test procedure
- Eric Grynberg -
 - Helped assemble cubesat and identified errors
 - Updated heat sink CAD + thermal straps.
 - Entered Quote in PCB Way for Hinges - TBD
 - Onboarded Keerthi to the project.
- Clara Devaux
 - Assisted assembling cubesat and identifying issues
 - Reading about vibe test procedure and mount
- Kiera Boucher
 - Assisted with prototype assembly
 - Determined how to use helical insert and break off tools
 - Restarted vibe test research to create a mounting attachment for 1u
- Keerthi Koganti -
 - Familiarized myself with the team and project
 - Took documentation for build process of first built of cubesat

Week of 01/13/25:

Team Level Progress:

- Familiarized new members with our progress & lab space
- Organized our team tasks into a spreadsheet that we will try to form issues in in GitHub
- Ordered standoffs in preparation for prototype build early next week
- Ordered new chassis to use for Vibe Test

Individual Progress:

- Crystal Scott -
 - Modified CAD assembly with adjusted board spacing to maximize available volume & eliminate interferences with current boards
 - Determined appropriate McMaster standoff lengths and implemented into CAD
 - Waiting for updated camera board before completely finalizing spacing
- Liz Zhang -
 - Modified chassis CAD to account for helicoil fasteners
 - Purchased new chassis and helicoil/insertion tools
 - Adjusted full assembly CAD to fix errors and swap new chassis parts
 - WIP
- Eric Grynberg -
 - Ran modal analysis on chassis to determine failure modes.
 - Made small modifications to heat sink to properly align
 - Will update CAD with these changes before early week build.
 - Met with Kaustubh to discuss hinge design, settled on using epoxy to secure pins.
- Clara Devaux
 - Started to look into vibe test fixture
 - Trying to get up to speed with the team
 - Will start working on assembly & test procedure once we start assembling prototype together beginning of next week
- Kiera Boucher
 - Spent time getting caught up with the CDR along with documentation provided by Benny regarding the vibe test.
 - Gathered data/dimensions to create a model for a mounting piece for the vibe test.
 - Familiarized myself with the CAD assembly and parts.