

Jan13 - Jan17 (Week 1)

Team Updates:

1. Mainboard V3 WIP
2. Batteryboard V3 WIP
3. Z+/- WIP
4. Power testing
5. Test plan for Mainboard and Batteryboard done

Individual Updates:

Haoran Zheng

1. Reviewed the schematics and PCB to refresh my knowledge of previously assembled boards
2. Wrote test plans for Mainboard V3 and Batteryboard V3
3. Made up for the missing Milestone report

Haoen Li

1. Going over the most up-to-date Mainboard and Battery board schematics and PCB
2. Added potential testing aspects for the test plan
3. Worked out the milestones

Zhaonan Shi

1. Back to Campus on Thursday, catching up with the progress
2. Went over the testing plans with the team

Varun Rajesh

1. Over break: C Star Tracker implementation: [varun-rajesh/minLOST](https://github.com/varun-rajesh/minLOST)
2. XY board updates (schematic / layout)
3. Solar Panel MPPT implementation testing, debugging
4. Argus-2 GitHub setup + Transferred old library files

Jan20 - Jan24 (Week 2)

Team Updates:

1. Finished most of the tests on the main board.
2. XY and -Z board updated.
3. Prepared for Jetson board setup.
4. Cleaned up the workplace.

Individual Updates:

Haoran Zheng

- Finalized the test procedure for the main board according to the test plan. The tests covered Power, MCU, IMU, SD Card, RTC, LoRa, and GNESS.
- Finished all the tests except the RTC test. The tests and problems encountered are recorded at https://docs.google.com/document/d/1dLfZinXjN15gXkg2M0psen0700JuZKRfREY_Jox-RBM/edit?tab=t.0
- Kept track of remaining IC chips from last semester and put the information at <https://docs.google.com/spreadsheets/d/1cII2KFmEGeTdTmyNbYf18UauH-BO1i6k5SS3yulUe5o/edit?gid=0#gid=0>

Haoen Li

- Going over the testing procedure and tested most functionalities in Mainboard, including MCU communication and flash storage, hardware watchdog, power step down to 5V and 3.3V, I2C communication for IMU and SPI communication for SD card.
- Soldered connectors for Mainboard #1 and #4
- Cleaned up Avionics workstation and listed the current components

Zhaonan Shi

- Worked on mainboard testing, finishing up the testing procedure
 - Finished most of the hardware testing, and wrote software circuitPython code for some of the ICs testing, including IMU and LoRa.

- Finalized the testing procedure, updated some details
- Cleaned workstation and sorted the components
- Check what boards are needed currently

Varun Rajesh

- Looking into setting up 4 MIPI/CSI cameras on Jetson
 - Lots of documentation reading
 - Understanding how to setup device tree overlays for this
- Handed off battery board for FSW testing
- Finished making updates to XY board
- Started + Finished updates to -Z board
 - New coil driver IC
 - Better protection circuits
 - New burnwire circuitry
- Start updates to +Z board
 - New sun sensor pyramid

Jan25 - Jan31 (Week 3)

Team Updates:

1. Finalize Battery Board test
2. Finished BOM record for XY, Battery, and Main Board

Individual Updates:

Haoran Zheng


- Finalized the test procedure for the Battery board according to the test plan.
- Finished the RTC tests for Main Board that are not covered from last week.
- Finished the BOM data collection for the Main Board.

<https://docs.google.com/spreadsheets/d/1CaYUG80hym9h6P1tDRLUHI3Seghx7CiSnkbT23jbzMk/edit?gid=0#gid=0>

Haoen Li

- Listed BOM for battery board.
- Finished RTC test on main board and turned main board test plans into github issues.

Zhaonan Shi

- Worked on battery board testing procedure, outline test for power test, battery test, and battery bus detection test.
- Finished RTC test on main board
- List BOM for XY board  BOM List , the component quantity based on 10 XY board

Varun Rajesh

- Looking into setting up 4 MIPI/CSI cameras on Jetson
 - Spent many hours configuring the device tree and flashing the Jetson and trying many many things
 - Not currently working but hopefully will soon!
- Redid updates to -Z board to bring it up to spec with XY and +Z revisions

- Updated PR2040 mainboard so it could be reordered
- XY board ordered
- Putting together BOMs for board orders

Feb 1 - Feb7 (Week 4)

Team Updates:

1. Finished Solar Board plans
2. Interfaced with Mechanical and helped to build the Cubesat on Chasis
3. New design for Battery, Main, XY, Z- are ready for order.
4. Camera works

Individual Updates:

Haoran Zheng

- Finished the test plans for the Solar Boards, including XY/-Z/+Z.
- Participate in the FSW's deep dive and take notes.

Haoen Li

- Wrote Test Plans for XY boards
- Interfaced with Mechanical Team to connect the boards together in chassis

Zhaonan Shi

- Worked on the Test plan for XY, -Z, and +Z board

Varun Rajesh

- 4 MIPI Cameras work
- Working with decreasing power consumption of Jetson
- XY, Mainboard, BatteryBoard BOMs ready for order
- Z- board ready for order

Feb 8 - Feb14 (Week 5)

Team Updates:

5. Finished Solar Board plans
6. Interfaced with Mechanical and helped to build the Cubesat on Chasis
7. New design for Battery, Main, XY, Z- are ready for order.
8. Camera works

Individual Updates:

Haoran Zheng

- Soldered the Battery Boards with Zhaonan and Haoen.
- Sort out components based on boards.

Haoen Li

- Put together a -Z board for the chassis
- Assembled four Battery Boards with Haoran and Zhaonan

Zhaonan Shi

- Assembled 4 battery boards, one of the components missing

Varun Rajesh

- Working with decreasing power consumption of Jetson
- BOMs ordered
- Worked on addressing Z- feedback
- Mainboard hardware debugging