

NAKUJA PROJECT

N3

Recovery Team
01st February 2023

Last week's objectives

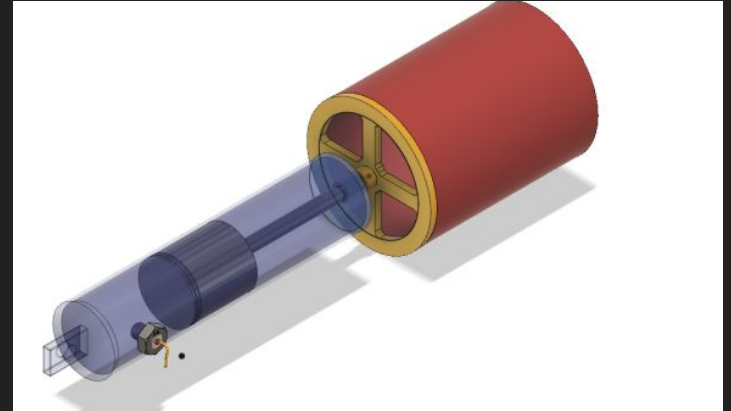
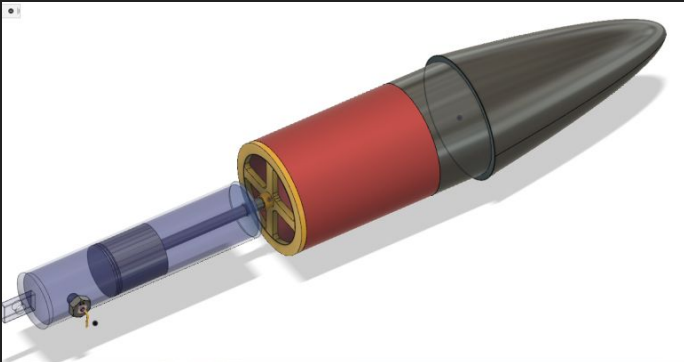
- Recovery :- Design of firebolts

Design and assembly of firing circuit

- Avionics :- Data Logging tests: EEPROM and flash
- Telemetry :- Simulate ground to flight communication
- Task timelines: Jira Software for project management

Recovery : Design of firebolts

- Designed fire bolts to be installed inside the piston to casue the internal pressure build up to eject parachute



Recovery : Ejection circuit

- Designed ejection charge circuit for ejection charge tests scheduled for next week

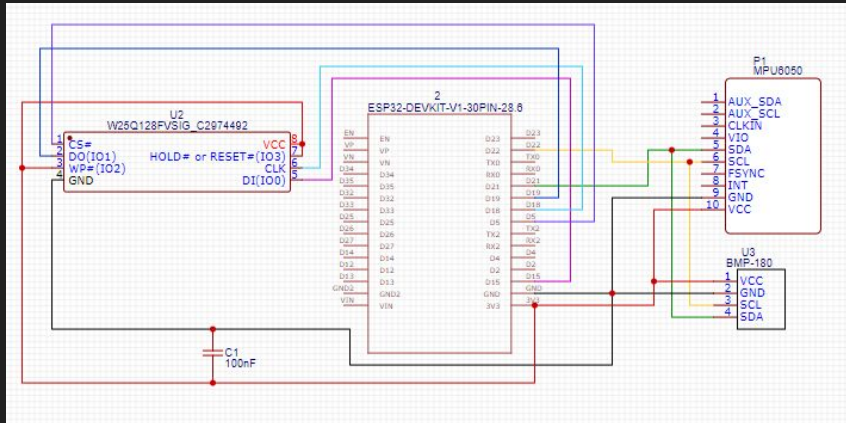


Avionics : Data Logging

Successfully logged data on EEPROM module and Flash chip

EEPROM has a smaller capacity in order of kB, and few read-write cycles; hence decision to go with flash memory

Imbedding flash with RTOS in progress



Telemetry : Ground- to-air simulation

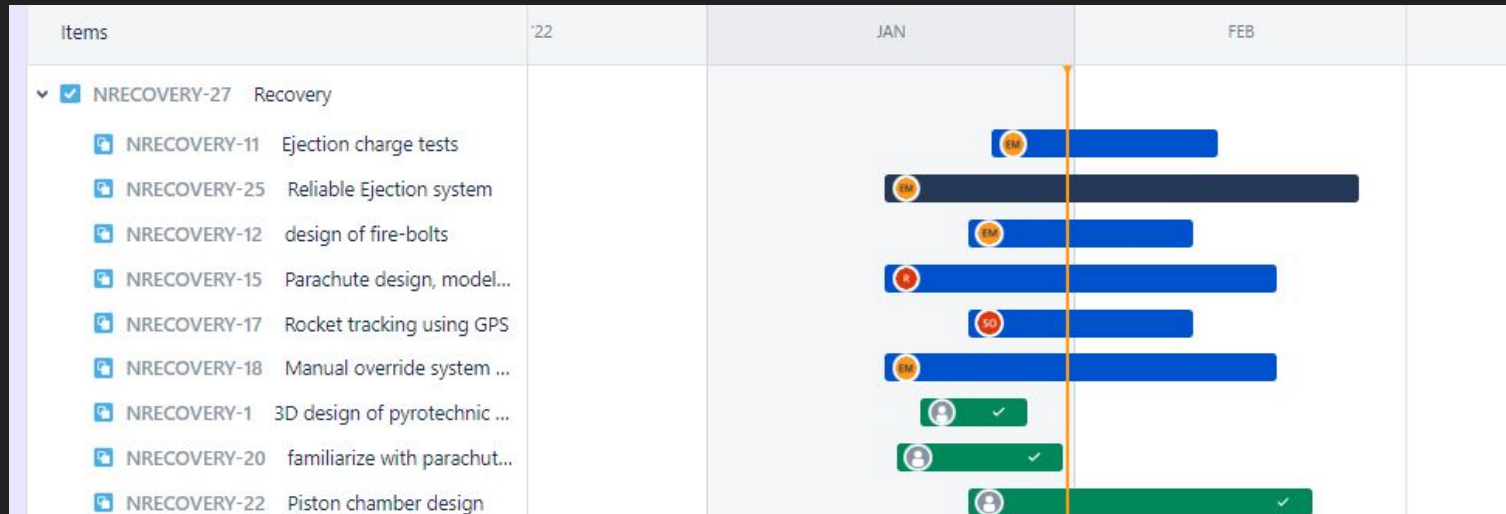
- Mock ground station setup

Send data packets via MQTT as JSON, - looking to move to protocol buffers

Task and timelines

Used Jira Software to keep track of all tasks , subtasks, timelines and issues of the team.

<https://junniper.atlassian.net/jira/core/projects/NRECOVERY/timeline>



Next week's objectives

WiFi Range Test #25

Ejection charge tests #16

Wrap around patch antenna research and design #20

Dashboard improvement #17