

# NAKUJA PROJECT N3

RECOVERY TEAM

15<sup>th</sup> FEBRUARY 2023

# Last week's Objectives.

- Avionics - Rocket Tracking using GPS. #6
  - Design of fire bolts #22
- Communication - Wi-Fi range tests #20
- Recovery - Manual Override System Design. #15
  - Wrap around patch antenna research and design #20

# Rocket Tracking using GPS. #6

- The GPS data was collected and decoded to get the location.
- The data collection was done at IPIC , Mango park and gate B.
- The module (neo-6m GPS module) took a while to find the satellite.
- The next task is the incorporation of a GPS tracking mechanism on the dash board under the github issue #17 Dashboard improvement.

# Design of fire bolts #22

- Purchased items for building pistons.
- Assembled the pistons
- We have built three pistons for testing the mechanism.

# Wi-Fi range tests #25

- We were able to get access to the previous Ground Antenna in order to carry out the tests.
- The maximum range of connectivity which we were able to attain was 270m .
- This was only 13.5% of the targeted range of connectivity.
- Tests were carried out near Sajorec and behind the GOK lab
- Next test to be carried out at a more open ground

# Manual Override System Design. #15

- Managed to send the manual override signal to the Mosquitto server.
- Challenges faced while the Flight Computer is trying to pick the message/command from the server. Still working to improve this and solve the issue.

# Wrap around patch antenna research and design #20

- This is yet to be done because it was to be carried out immediately after the WIFI range tests but range test which is not done yet.

# This week's objectives

- Wi-Fi range tests #25
- Ejection charge tests #16
- Dashboard improvement #17
- Wrap around patch antenna research and design #20



THE END

