



ECE Full System Test Performance

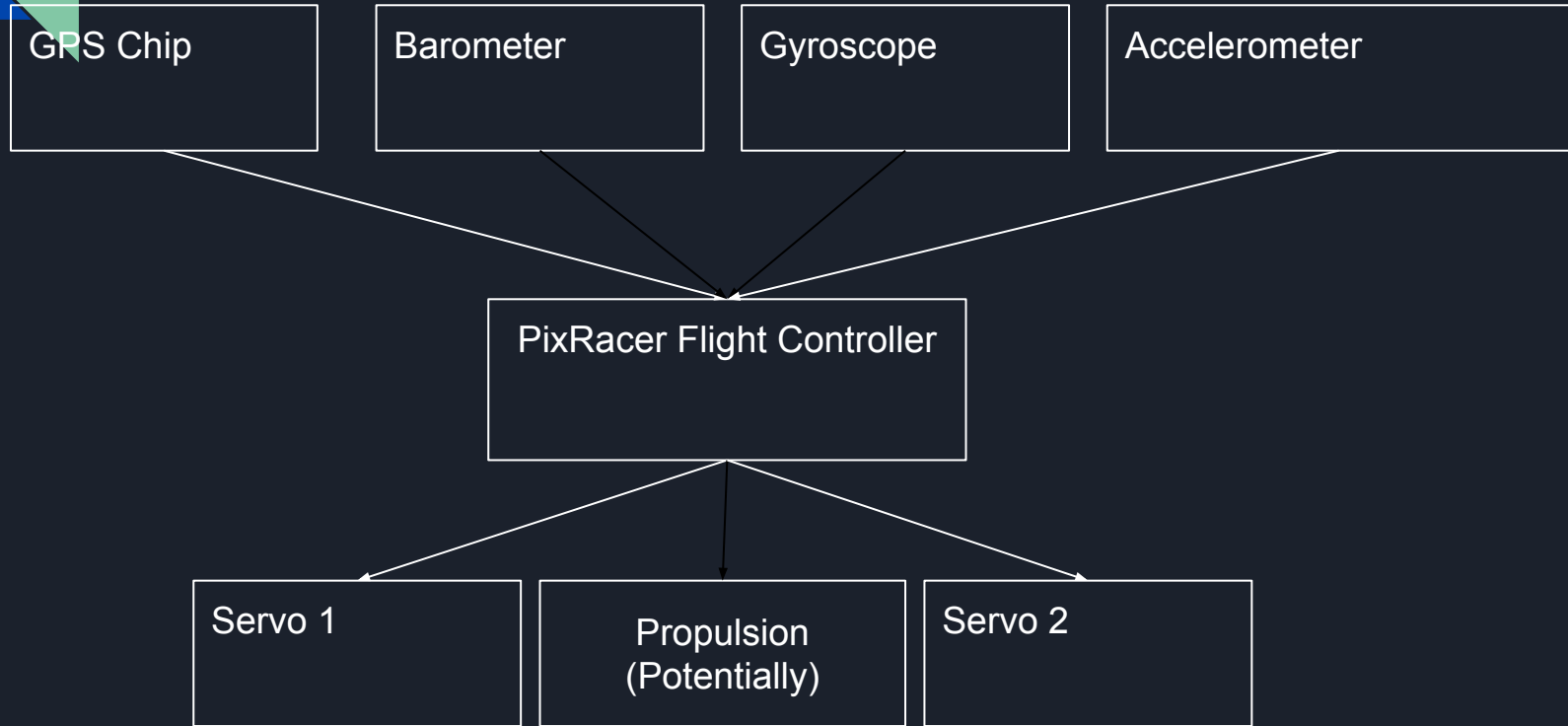
Larry Herring: Programmer
Sterling Leech: Scrub Master

Drone's Microcontroller:

- mRo PIXRacer R15
- Software: C++
- Fryskey Telemetry: Mission Planner
- Main Hardware Components & Specs
- Hardware layout Update
- Testing Ejection Rest



Block Diagram:



Test Results

00:00:00.000

randomize gps

Red shows flight path

Driving to airport

Flying to test site

Actual test (zoomed on next slide)

Test Results Contd

00:00:00.000

randomize gps

Initial overpass

Approaching drop

Drop location

Test Results Contd

00:00:00.000

randomize gps

Initial overpass

Approaching drop

Drop location





Collected Data



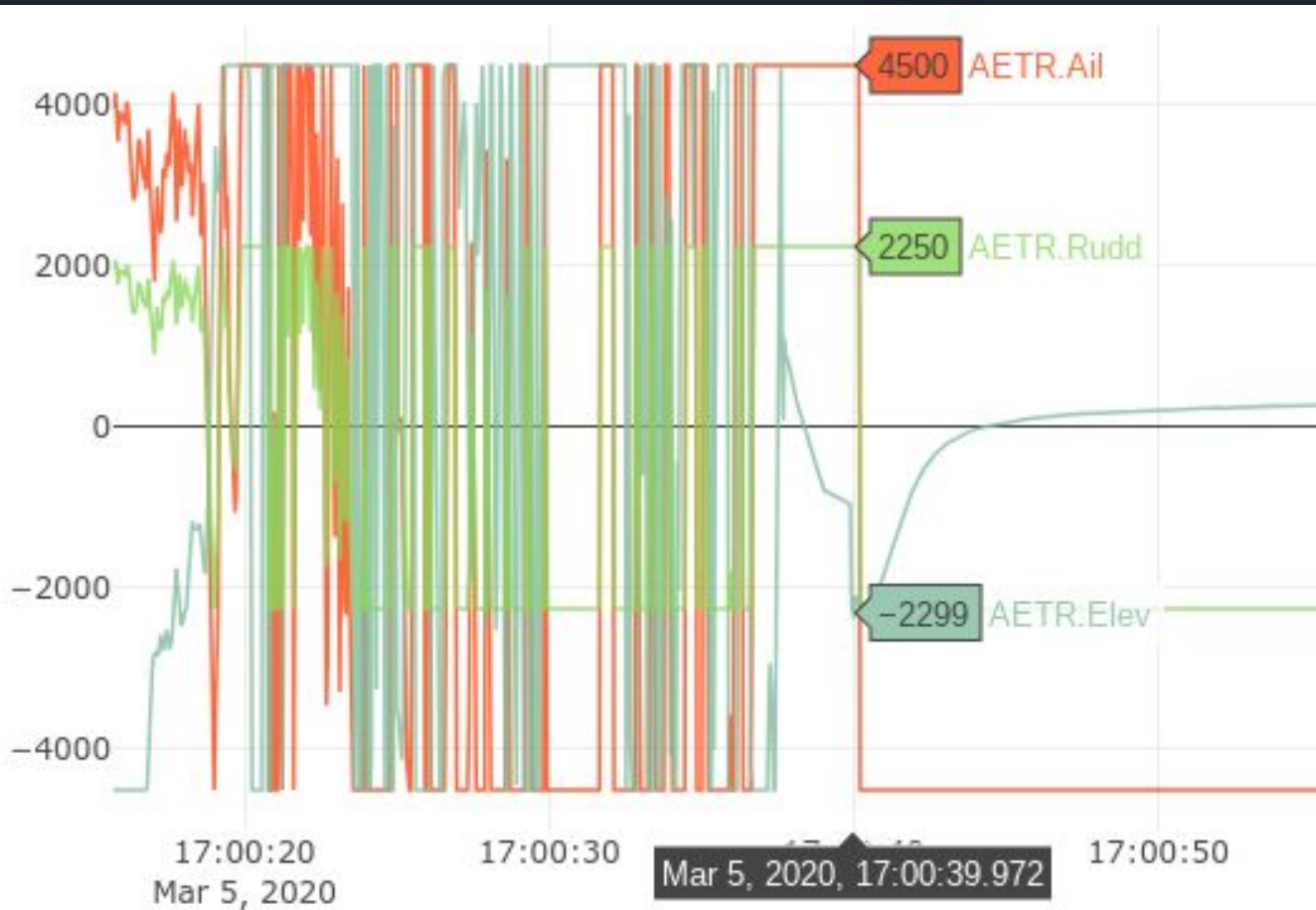
Distance from drop to landing = 324.65 ft

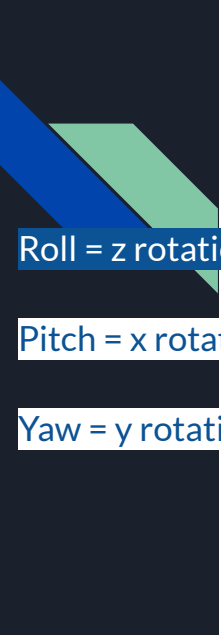
Measure distance

Click on the map to add to your path

Total distance: 324.65 ft (98.95 m)

Analyzing Outputs

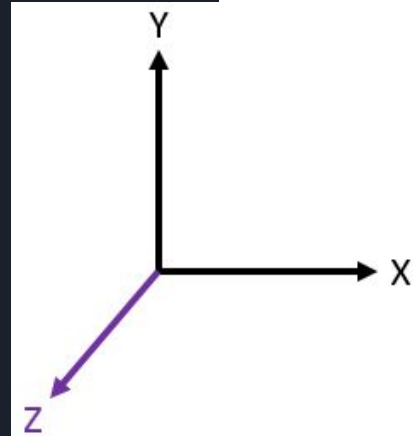




Roll = z rotation

Pitch = x rotation

Yaw = y rotation





Ejection Rest (Testing Launch)





Data

Free Fall Time = 17 seconds

Distance from drop to land = 324.65 feet



Conclusion & Next Step

- Testing on full prototype have been completed.
- Planning for further testing for better performance.
- Further research will be done for finding better quality hardware specs