Nakuja internship
Team meeting

Progress report

Name: MICHAEL KIMANI

Tasks carried last week

- SD card module with 3V3 logic
- Kalman filter - https://github.com/nakujaproject/avionicsv1/blob/main/BMP180KALMAN/bmp_mpu/bmp_mpu.ino
- Acquired prototyping boards and soldered components for testing
- PCB design of the avionics bay

Mike-Kimani Kalman filtered accelerometer data in csv

Latest commit 2326c6f 12 minutes ago History

1 contributor

1252 lines (1252 sloc) | 21.1 KB

Raw Blame

```
Index, Raw, Filtered
0, 9.78, 9.77
1, 10.07, 9.92
2, 10.19, 10.02
3, 10.09, 10.04
4, 10.15, 10.07
5, 10.13, 10.08
6, 10.11, 10.09
7, 10.06, 10.08
8, 10.05, 10.07
9, 10.07, 10.07
10, 9.82, 10.01
11, 9.76, 9.95
12, 10.08, 9.98
13, 10.14, 10.02
14, 10.36, 10.10
15, 10.46, 10.19
16, 10.37, 10.24
17, 10.32, 10.25
18, 10.23, 10.25
19, 10.08, 10.21
20, 10.22, 10.21
21, 10.28, 10.22
22, 10.16, 10.21
23, 10.19, 10.20
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Mike-Kimani Kalman filtered altitude data — Latest commit 86d3e4d 12 minutes ago — History

1 contributor

1252 lines (1252 sloc) | 27 KB — Raw | Blame

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Index, Raw, Filtered
0, 1558.04, 1554.48
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3, 1557.95, 1559.14
4, 1557.66, 1558.93
5, 1557.76, 1558.80
6, 1558.04, 1558.83
7, 1558.24, 1558.91
8, 1557.76, 1558.76
9, 1558.04, 1558.77
10, 1557.66, 1558.63
11, 1557.56, 1558.51
12, 1557.95, 1558.55
13, 1558.33, 1558.70
14, 1557.47, 1558.56
15, 1557.76, 1558.55
16, 1557.66, 1558.52
17, 1557.76, 1558.53
18, 1557.28, 1558.41
19, 1557.76, 1558.46
20, 1557.56, 1558.46
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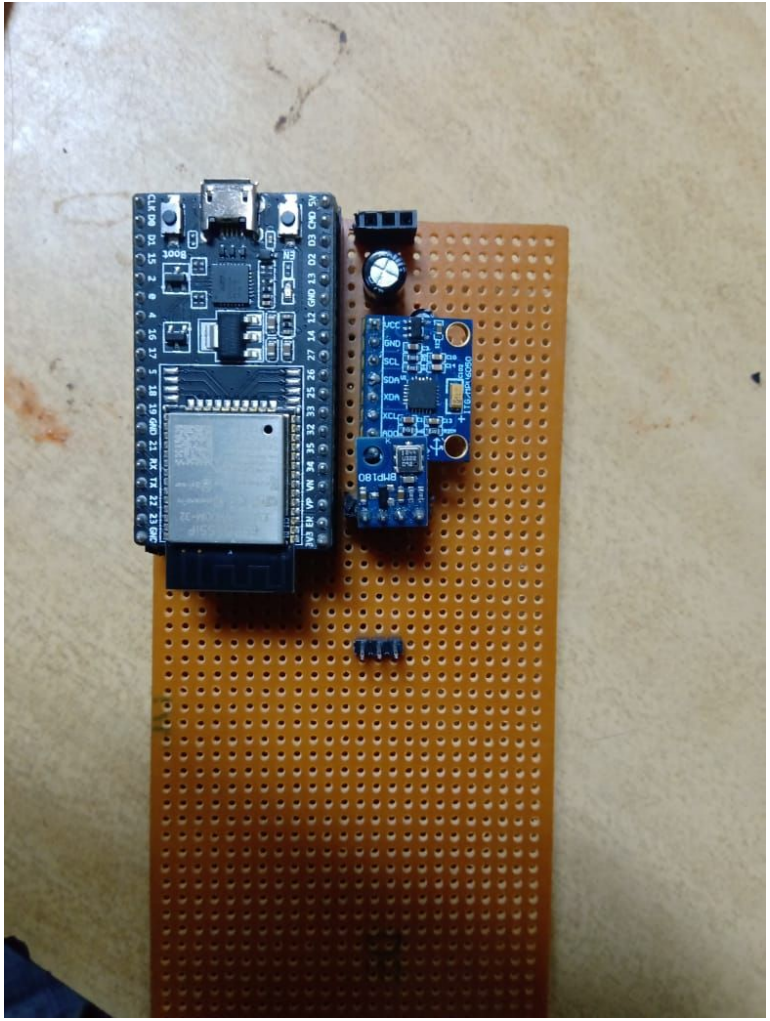
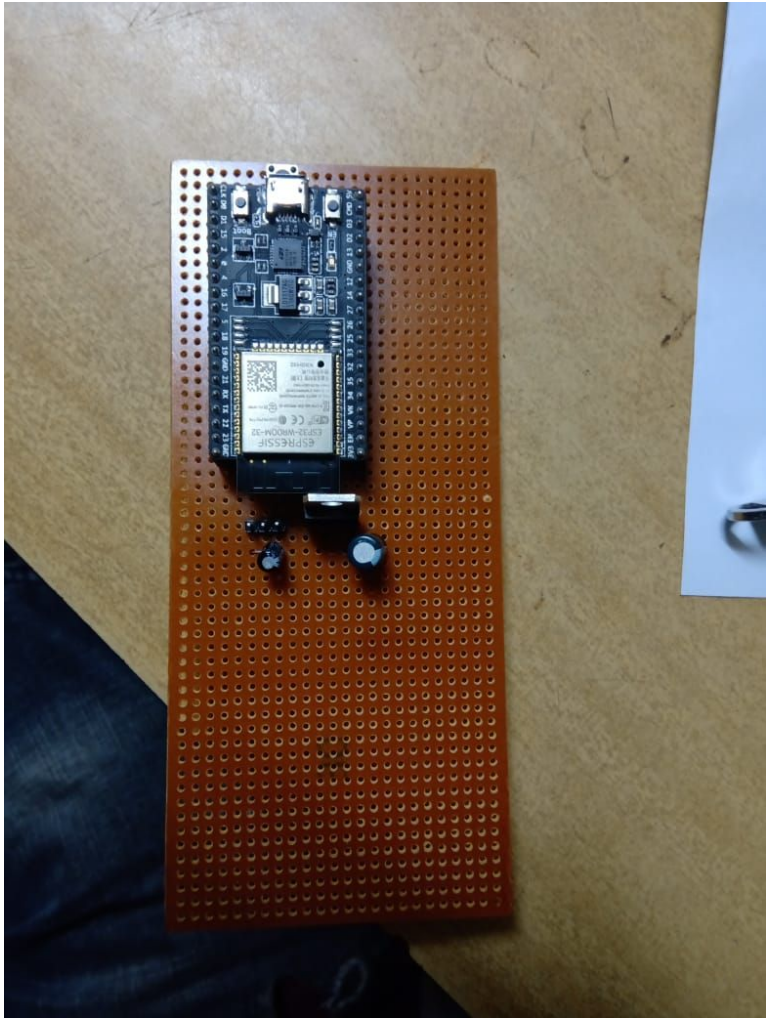

BOOT
BMP180
VCC
GND
SCL
SDA
XDA
XCL
ADO



Tasks in this week

- PCB Design
- Kalman filter
- Parachute tests

TIMELINE

Month	Week	Tasks
Mar	Week 1	Research and acquisition of sensors
	Week 2	Ignition and parachute deployment programming
	Week 3	1. PCB design of the avionics bay 2. Parachute deployment programming 3. Avionics components
	Week 4	1. SD card module with 3v3 regulator 2. More filter tests 3. Pcb design 4. Acquire prototyping board
Apr	Week 1	1. PCB design 2. Kalman filter, more parachute tests
	Week 2	Airframe integration
	Week 3	Integration with propulsion
	Week 4	Launch N-1 rocket