



Dragon Fruit

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Overview

- Updates
- Schedule
- Problems Encountered
- Final Status
- Future Improvements





Updates 1

- Transmit working
- Full Integration works
 - ✓ Solar irradiance
 - ✓ Humidity
 - ✓ Pressure

-----Sensor Data Readings-----

BatterymV Data:3357

SolarIrrmV Data:650

Humiditypct Data:51

PanelmV Data:175

Pressurepa Data:71

Tempdecic Data:190

-----Sensor Data Readings-----

BatterymV Data:3406

SolarIrrmV Data:650

Humiditypct Data:52

PanelmV Data:215

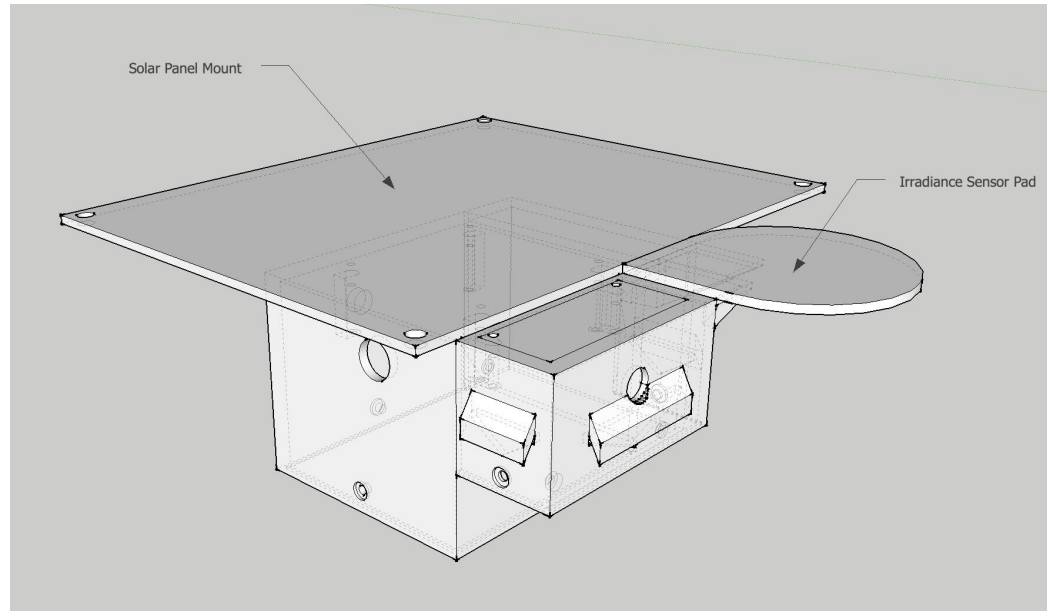
Pressurepa Data:71

Tempdecic Data:192



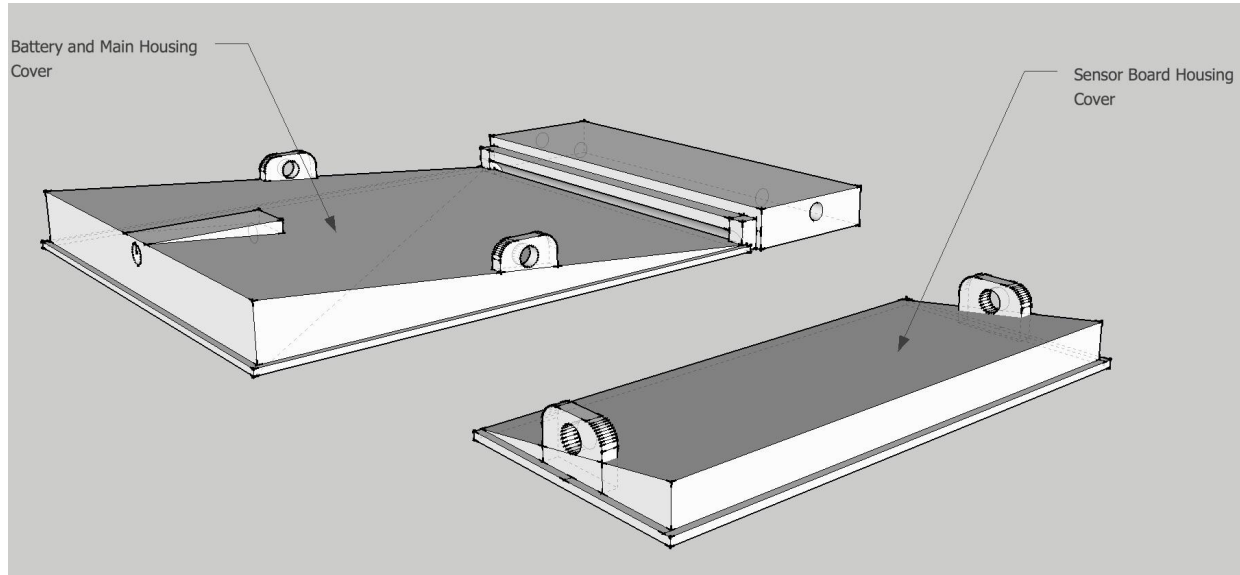


Updates 2



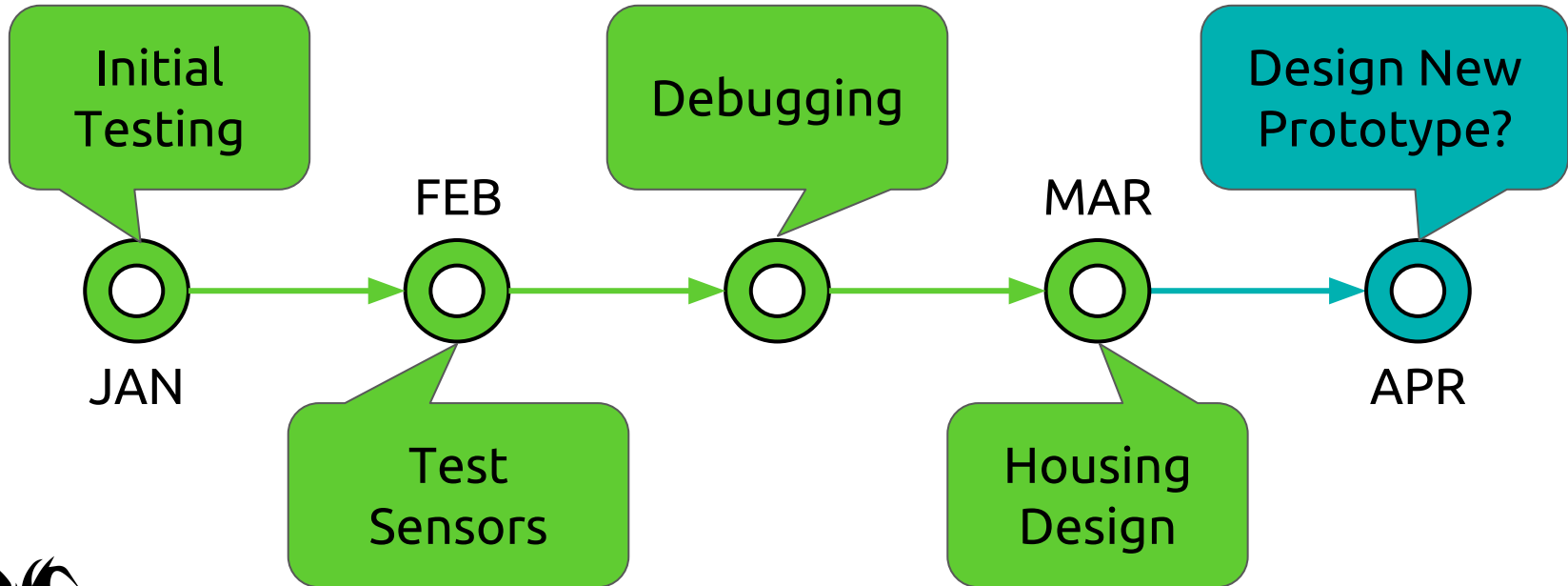


Updates 3



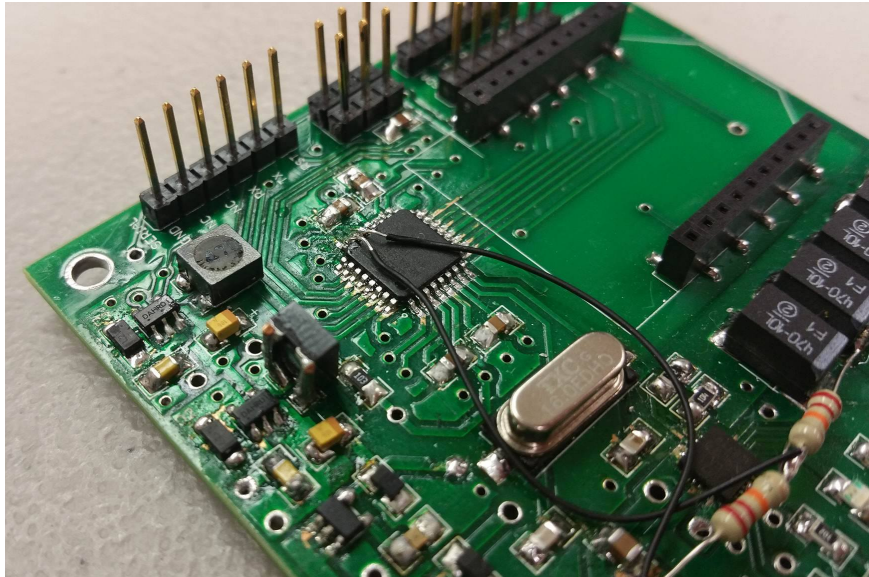


Schedule





Problems Encountered



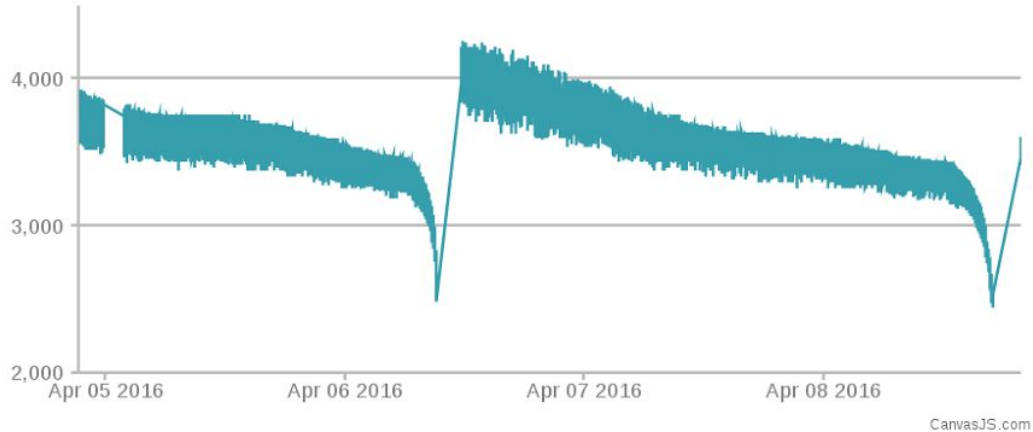
- XBee phantom volt





Problems Encountered

Battery Voltage for Dragonfruit Test

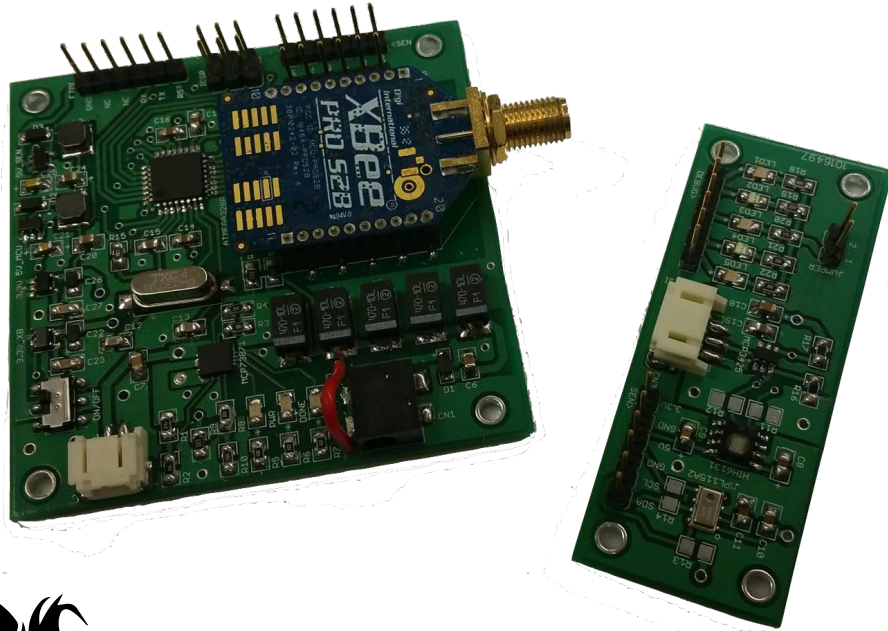


- Noise from internal ADC affects battery voltage reading





Final Status



Version 2

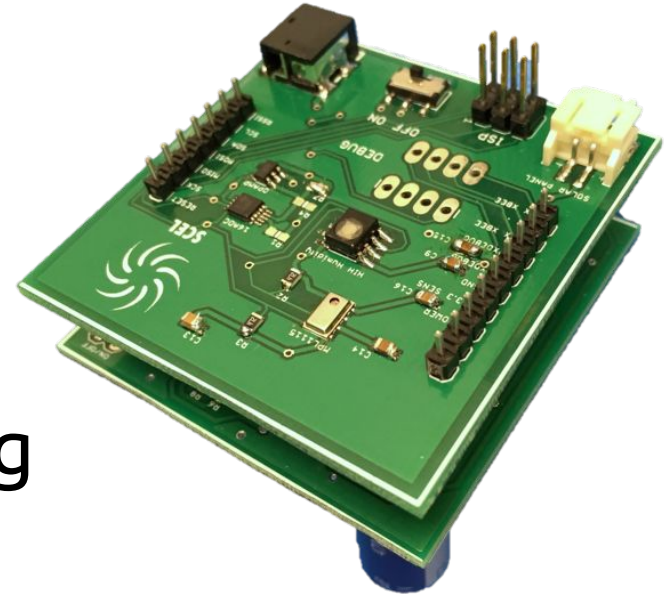
- Full integration complete
- Ready to deploy after housing complete





Future Improvements

- Additional board with new features
 - GPS
 - RTC (Real time clock)
 - More accurate sensors
- Alternative battery charging circuit





Acknowledgements

- **Advisor:** Dr. Anthony Kuh
- **Leadership Team:** Christie Obatake, Kenny Luong, Zachary Dorman
- **Mentor:** Jonathan Liang, Jason Tanabe
- **REIS Teams:** Apple, Cranberry, Firmware, Verification, Networking and Server, Forecasting, Wind Sensor
- **x96 Teams:** Asteroid, Badger, Black Hole, Nova, Quasar, Rocket





Questions?
