



# Dragon Fruit Preliminary Design Review (PDR)

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# Overview

- Goals for Semester
- Overall Block Diagram
- Problems Encountered
- Potential Solutions
- Team Progress
- Data Analysis
- PCB
- Schedule





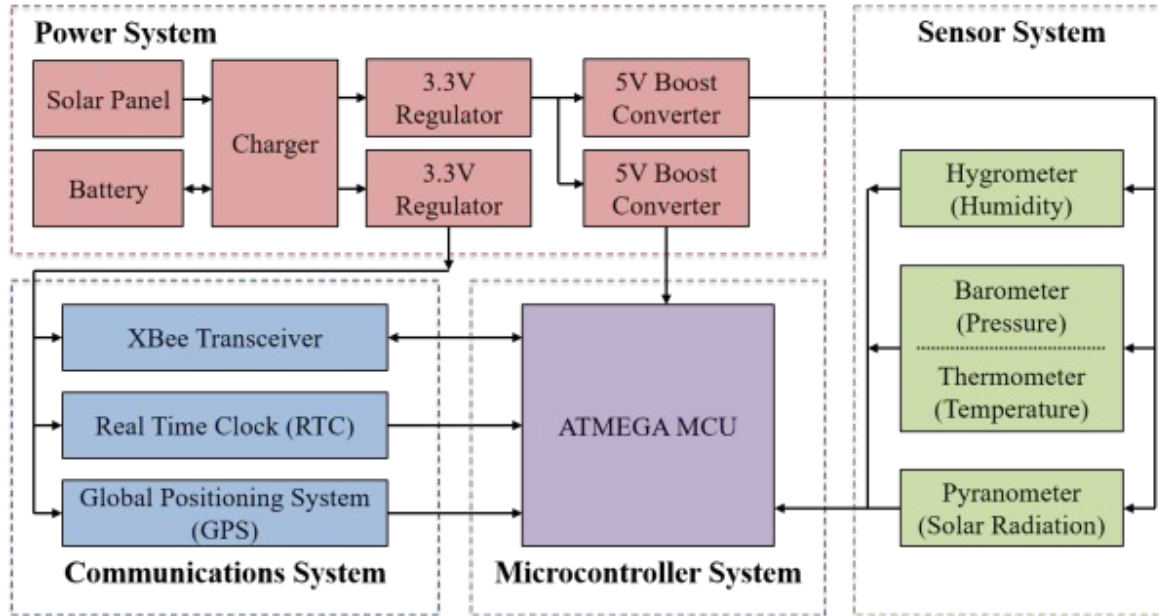
# Goals for Semester

- Debug transmission issues
- Current analysis for debugging
- Pseudo-deployment outside





# Overall Block Diagram





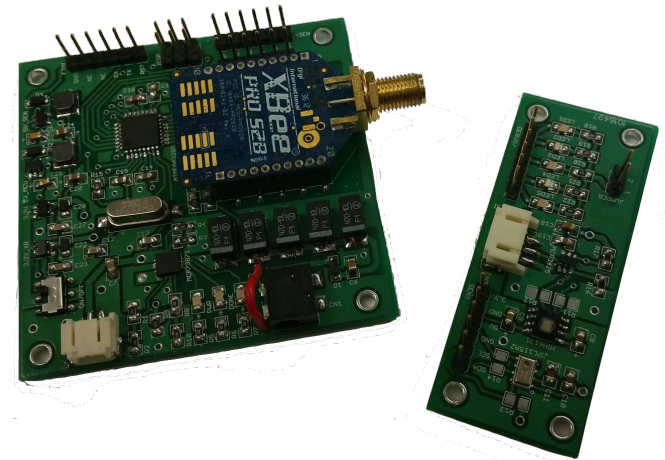
# Problems Encountered

- Currently deployed board stopped transmitting since 10/3
- Roof top access
- Adafruit charging chip replacement did not solve issues



# Potential Solutions

- Use Arduino to locate moments of high current
- Pseudo-deployment
  - Bring board outside to monitor behavior





# Team Progress

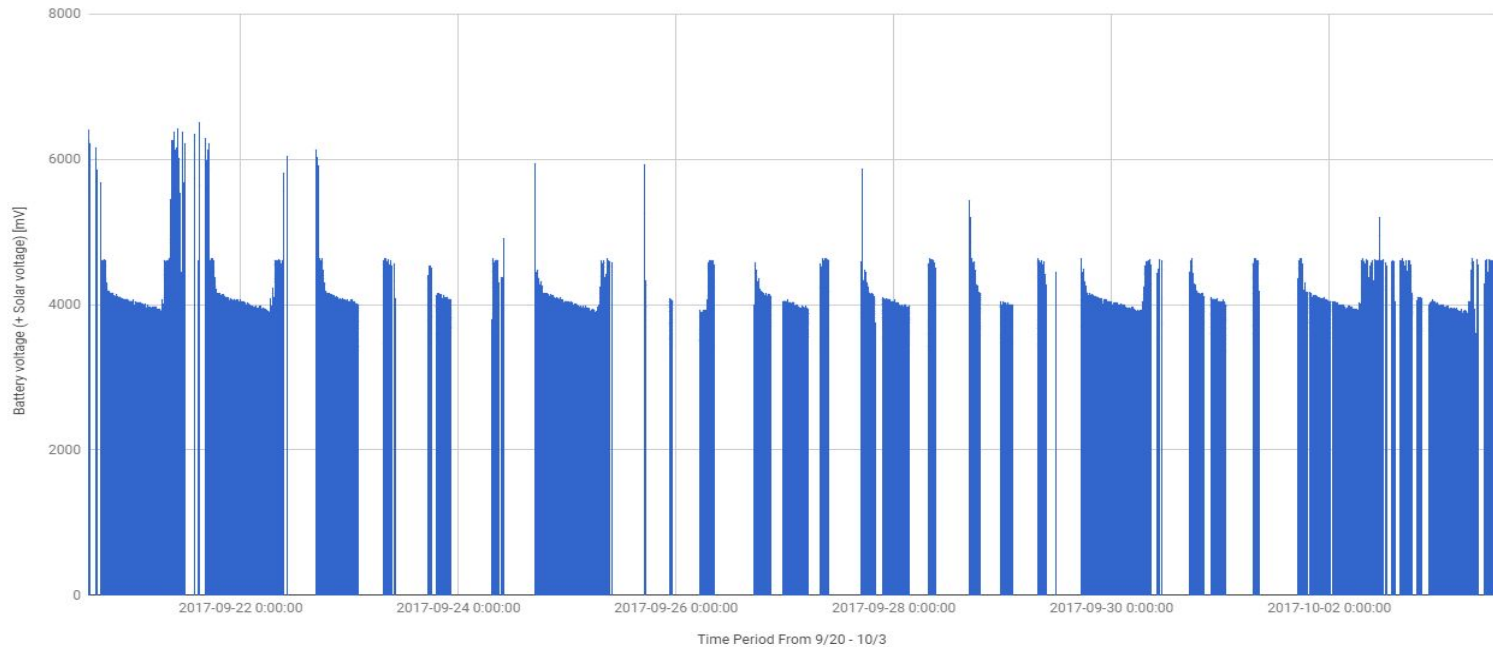
- Charging Chip has been soldered on the new board (v3)
- Test deployed with external charging chip (v2)
- Arduino Current Behavior Test (v3)
  - So far no abnormalities seen in charging chip
- Deployment Data Analysis (v2)
  - Graphed last deployment data (9/20-10/3) (Data Time Period)





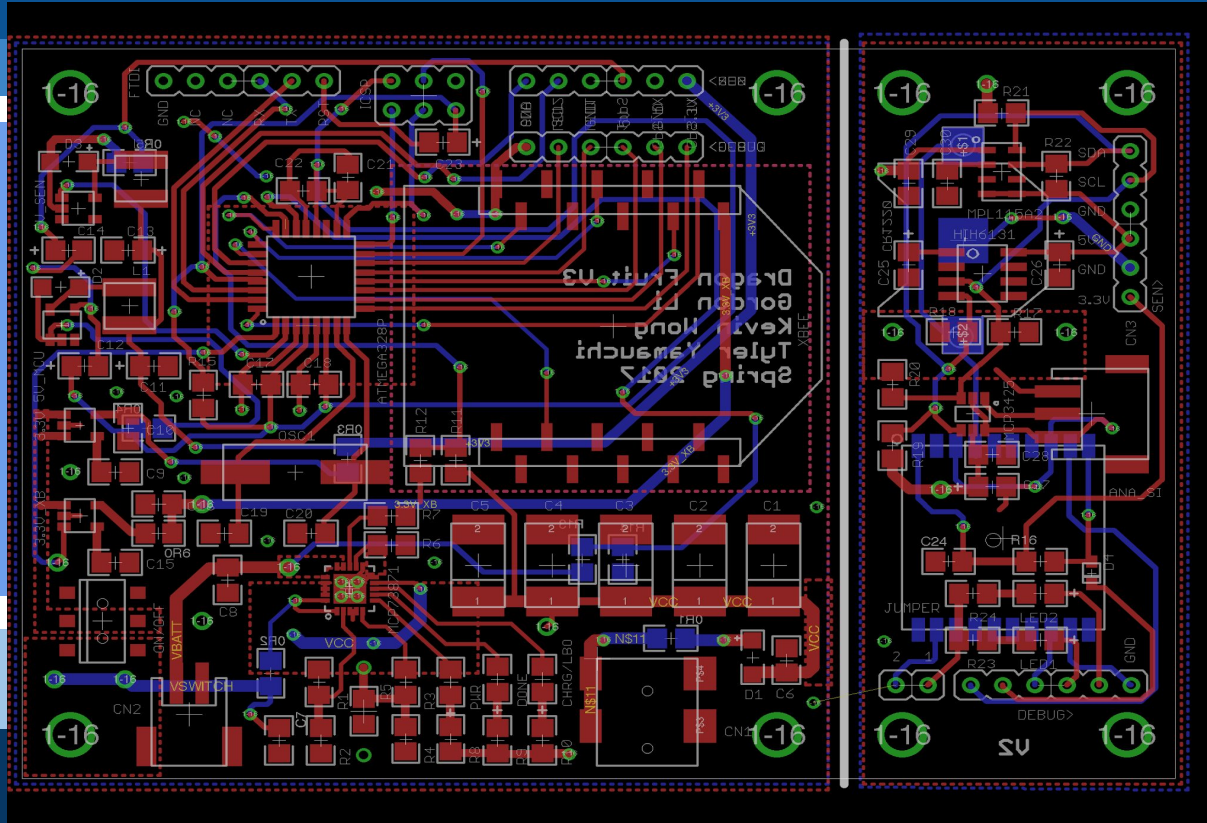
# Team Progress Cont.

Battery voltage (+ Solar voltage) vs. Time Period





# PCB



# Schedule



	Project (Gantt Chart)									
Week	7	8	9	10	11	12	13	14	15	16
Date	10/9/2017	10/16/2017	10/23/2017	10/30/2017	11/6/2017	11/13/2017	11/20/2017	11/27/2017	12/4/2017	12/11/2017
<b>Presentations</b>										
Proposal										
Preliminary Design (PDR)										
Critical Design (CDR)										
Final Design (FDR)										
<b>Test + New Version</b>										
Test Deployment (Version 2)										
Solder New Board (Version 3)										
Test (Version 3)										
Deployment (Version 3)										
Power Analysis (Version 2+3)										
<b>Housing</b>										
Edit Housing Design (Version 3)										
<b>Report</b>										



# Questions?



# Image Sources

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<http://cryptid-creations.deviantart.com/art/Daily-Paint-1081-Dragon-Fruit-Keeper-570702189>

<http://www.michaelleestallard.com/wp-content/uploads/Hello-My-Name-Is-Name-Badge.jpg>