



Cranberry

EE396 Proposal Presentation



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Overview

- Introduction
- Cranberry Overview
- Semester Goals
- Learning Expectations
- Team Progress
- Gantt Chart
- Potential Problems
- Questions

PICTURE



Introduction

Jennifer Chun

Team Leader

PCB:Main Board



Emily Lum

Team Member

PCB:Sensor Board



Joslyn Hamada

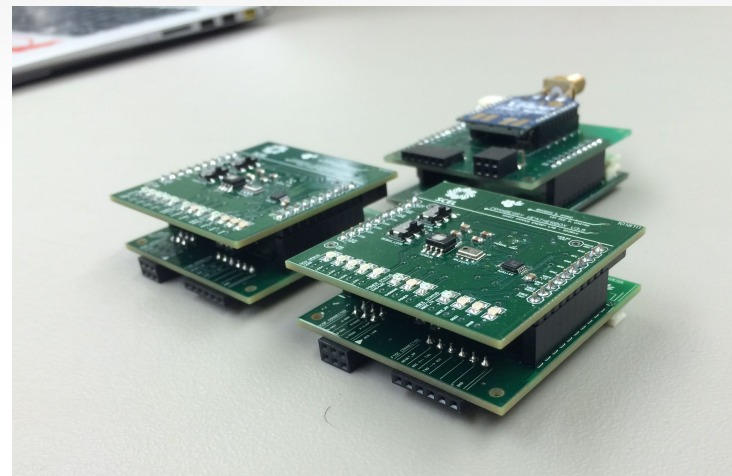
Team Member

Soldering Master:
Cranberry 3.5



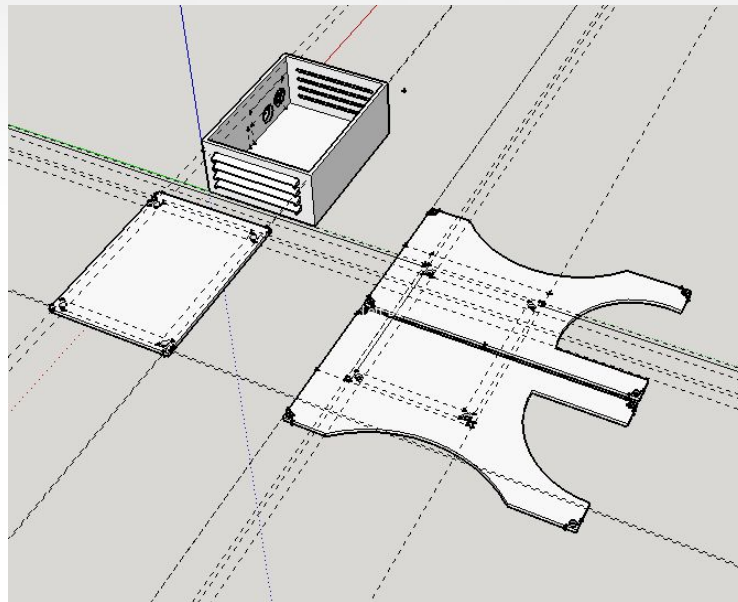
Cranberry Motivation

- Improve hardware of first generation weatherbox
 - Create more efficient power system
 - Reduce size
 - Lower cost
 - Improve functionality
- Third generation weatherbox

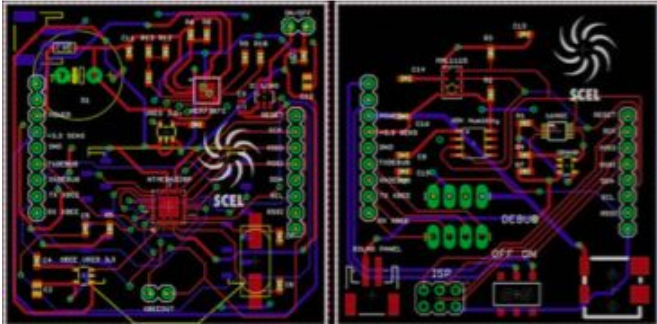


Cranberry Design Overview

- 2" X 2" stacked boards
- Top: Sensor Board (3.3v)
- Bottom: Main Board (3.3v)
- Sensors:
 - Solar Irradiance, humidity, temperature, pressure
 - Version 4.0: GPS, real time clock
- Housing Design
 - Two main parts: box and panels
 - Mounting piece



Semester Goals



- Deploy Cranberry 4.0
 - Complete new PCB design
 - Test, debug, deploy 4.0
- Deploy Cranberry 3.5
- Redo housing design



Learning Expectations

- Enhance soldering skills
- Gain experience in PCB design
- Learn from other weatherbox teams



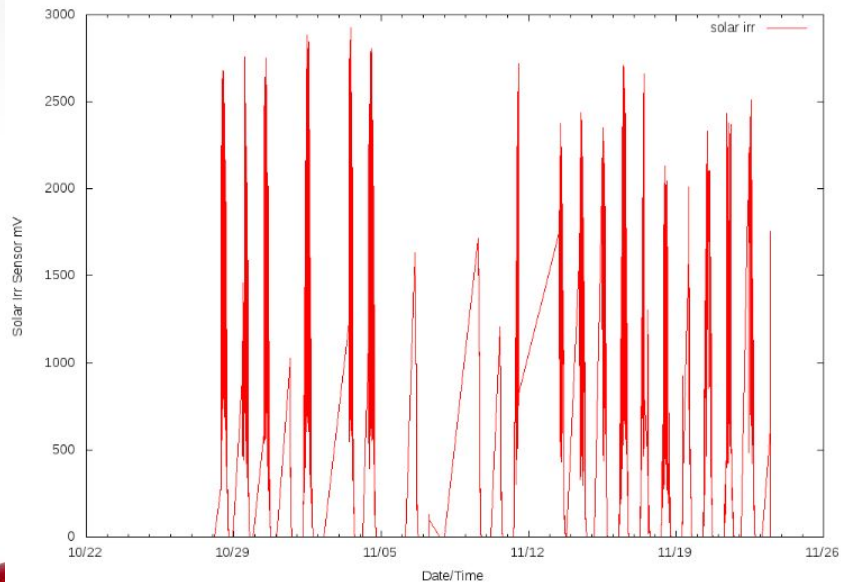
Team Progress

- Redeployed Cranberry v3.5 Board
- Completed Schematic for Cranberry v4.0
- Began PCB layout for Cranberry v4.0
- Began populating a new Cranberry v3.5 Board

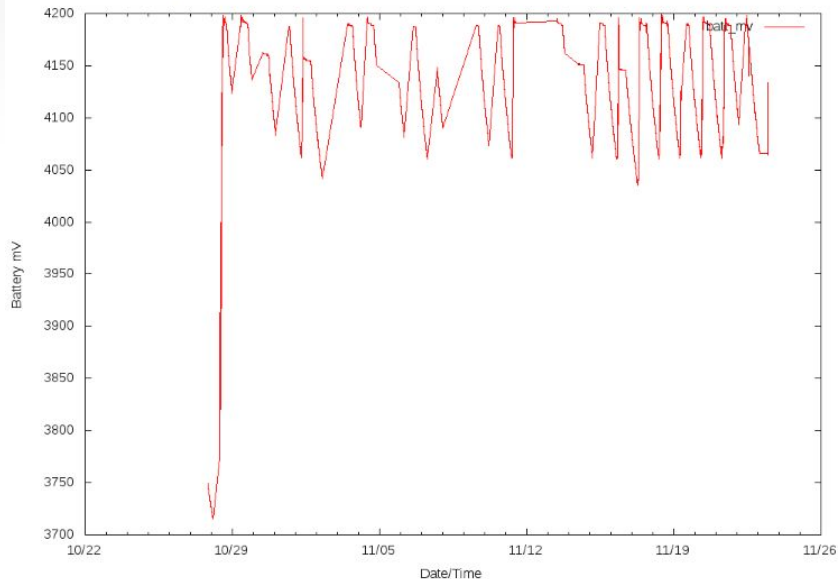


Cranberry Data 1st Deployment

Solar Irr

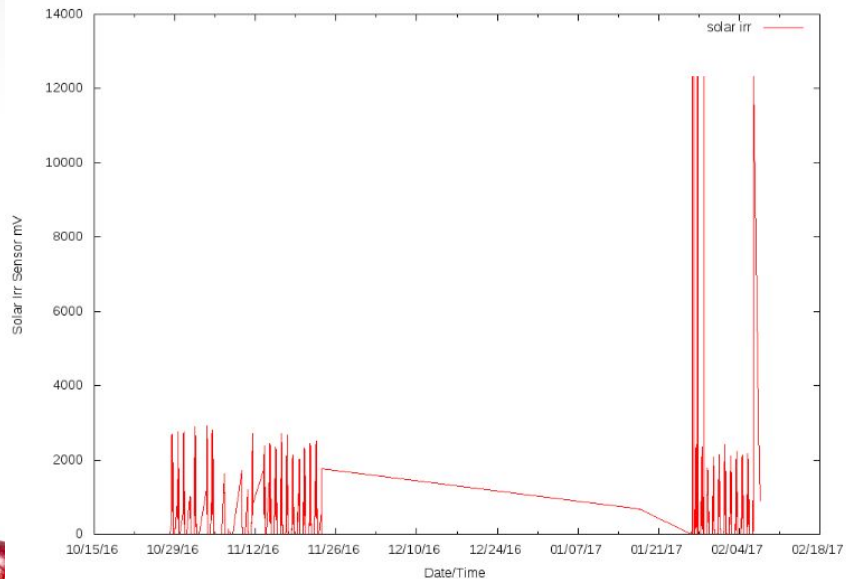


Battery Voltage

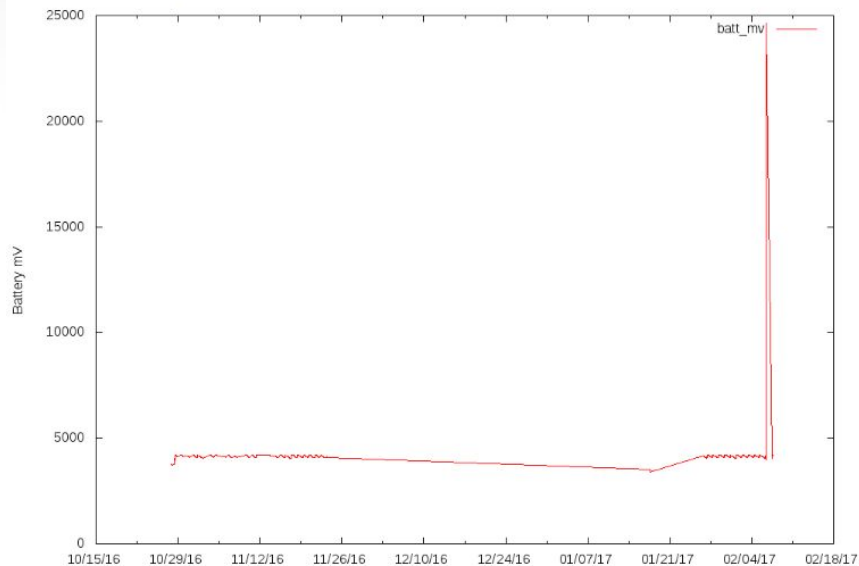


Cranberry Data 2nd Deployment

Solar Irr

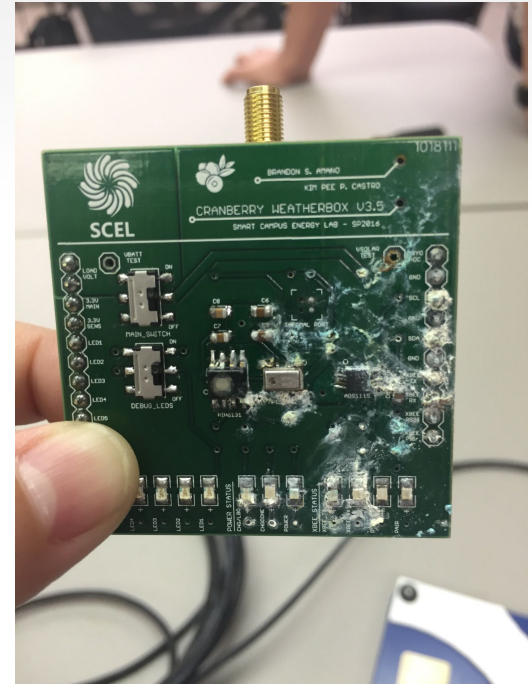


Battery Voltage



Current Problems

- Cranberry v3.5 water damage
 - Populate new v3.5 board
 - Fix housing



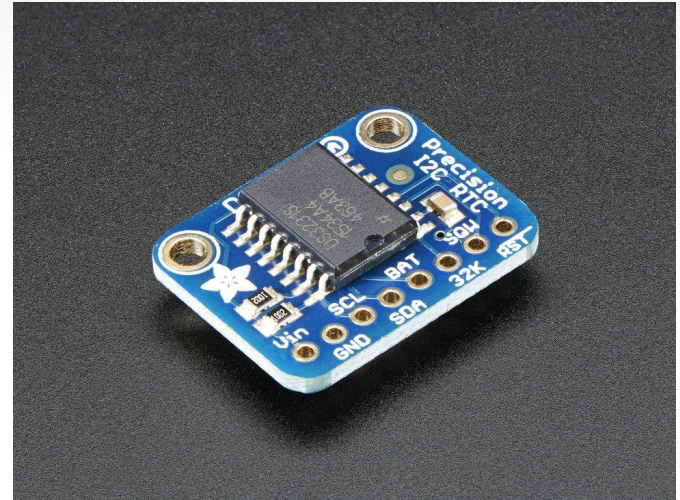
Gantt Chart

	1/16	1/23	1/30	2/6	2/13	2/20	2/27	3/6	3/13	3/20	3/27 (S)	4/3	4/10	4/17	4/24	5/1	5/8 (F)
GPS Decision/Eagle Part	X	X															
Design 2nd Pg. Schematic		X	X	X													
Redeploy ver. 3.5		X															
PCB Layout																	
Send out PCB by:																	
Redesign/Print Housing																	
Populate 3.5 Board																	
Populate 4.0 Board																	
Debugging																	
Deploy ver. 4.0																	
396 Paper																	



Potential Problems

- Time constraints
- GPS and real time clock



Any
Questions?

