



Cranberry

EE396 Preliminary Design Review



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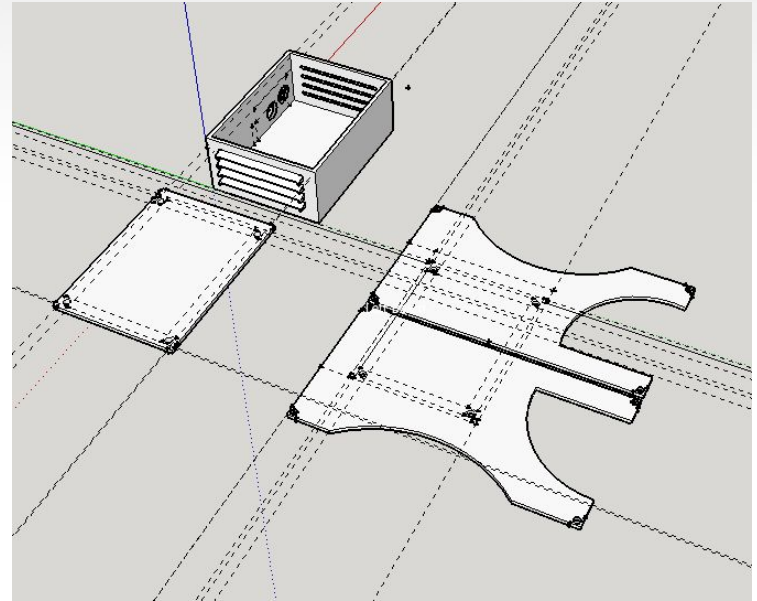
Overview

- Cranberry Overview
- Block Diagram
- Progress
- Problems
- Future Work
- Questions

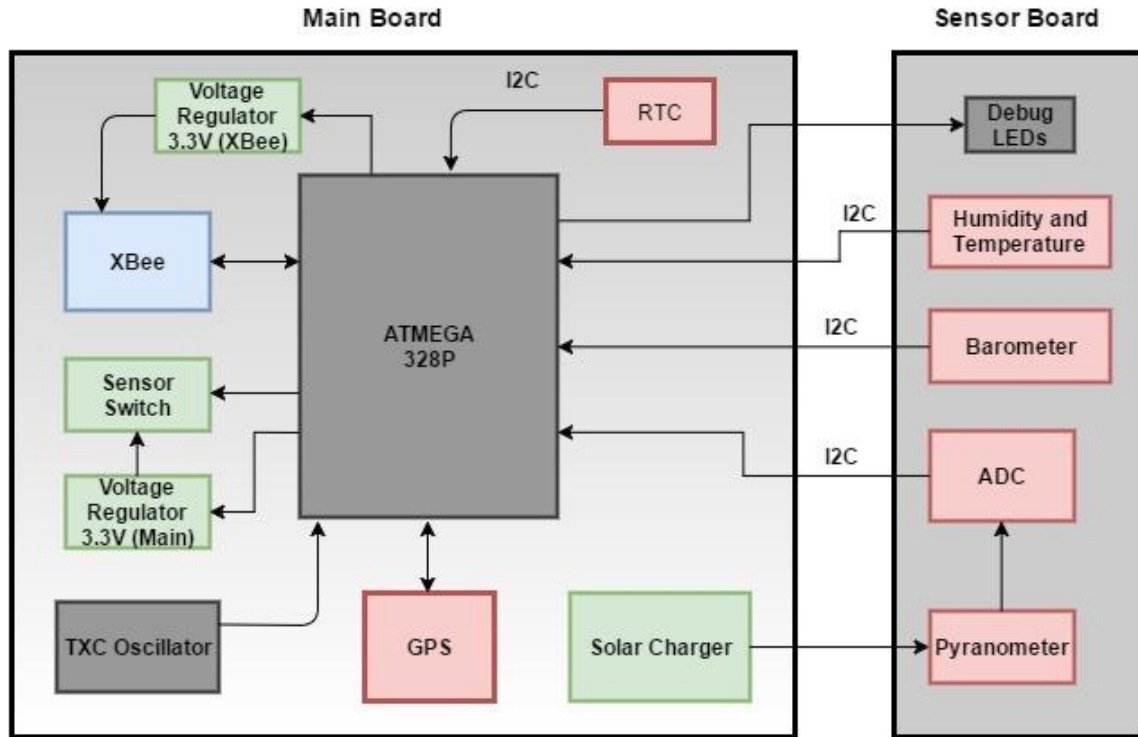


Cranberry Design Overview

- 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

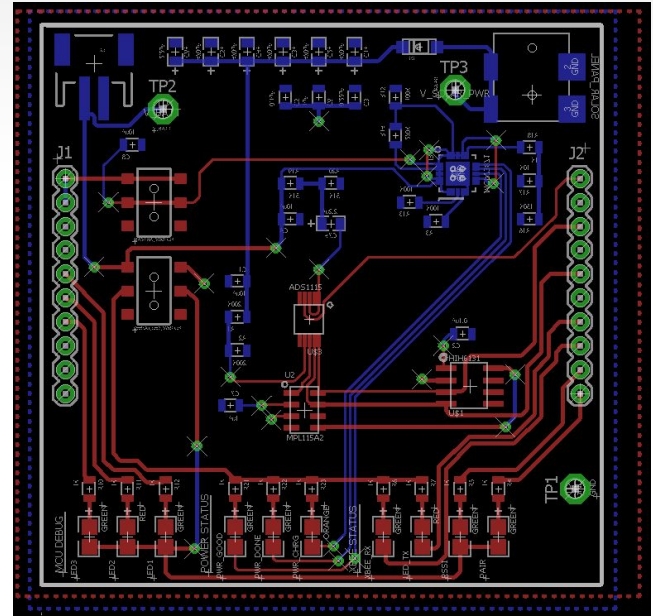


Block Diagram



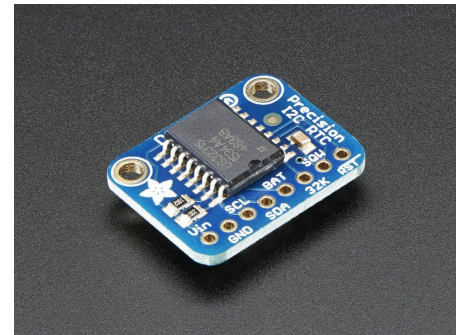
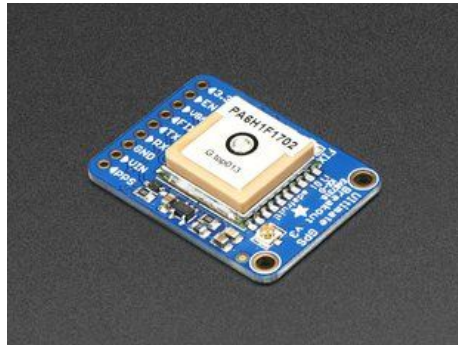
Team Progress

- Completed PCB layout for Cranberry v4.0 Top board
- Completed PCB layout for Cranberry v4.0 Bottom board
- Halfway completed populating a new Cranberry v3.5 Board



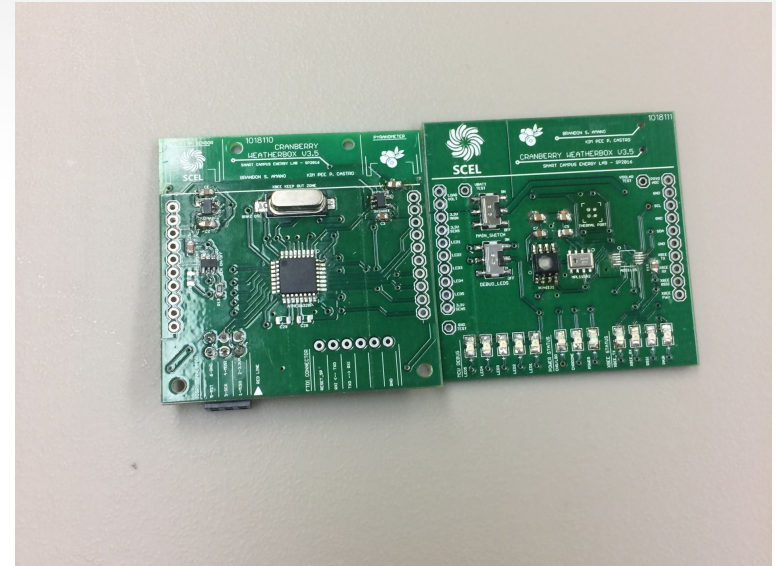
Cranberry V. 4.0

- New dimensions: 2.35'' by 2.35''
- New parts:
 - Adafruit Ultimate GPS Breakout - 66 channel w/10 Hz updates - Version 3
 - Adafruit DS3231 Precision RTC Breakout



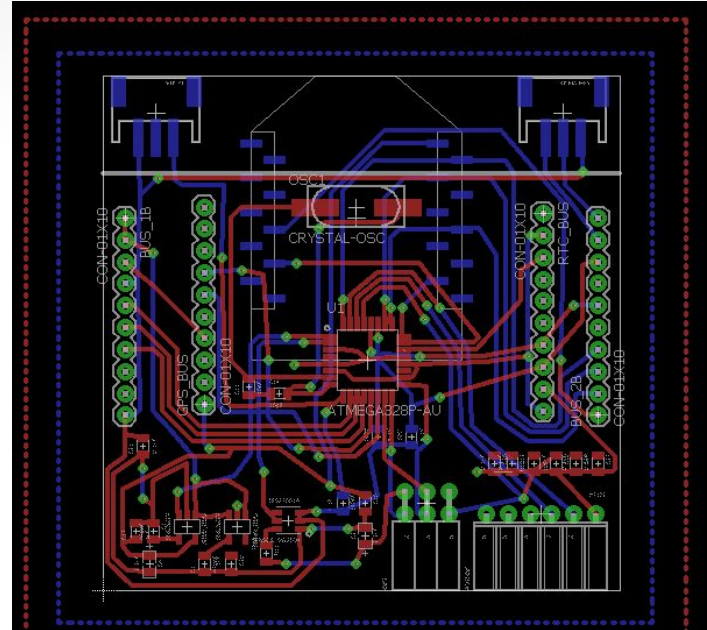
Problems & Solutions

- Ran out of parts to solder
 - Need to order parts
- GPS and RTC tracing difficulties



Remaining Work

- Send out Cranberry v4.0 for fabrication
- Finish soldering second half of Cranberry v3.5
- Populate v4.0 for deployment
- Redesign housing



Gantt Chart

	1/16	1/23	1/30	2/6	2/13	2/20	2/27	3/6	3/13	3/20
GPS Decision/Eagle Part	X	X								
Design 2nd Pg. Schematic		X	X	X						
Redeploy ver. 3.5		X								
PCB Layout				X	X	X	X			
Send out PCB by:										
Redesign/Print Housing										
Populate 3.5 Board										



Any
Questions?

