Cranberry

EE496 Proposal Presentation

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Overview

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

Introduction

Emily Lum

Team Member

- Senior
- Electrical Engineering
  - Electrophysics

Introduction

Emily Kane

Team Member

- Junior
- Electrical Engineering
  - Electrophysics

Introduction

Jennifer Chun

Team Member

- Senior
- Electrical Engineering
  - Electrophysics

Introduction

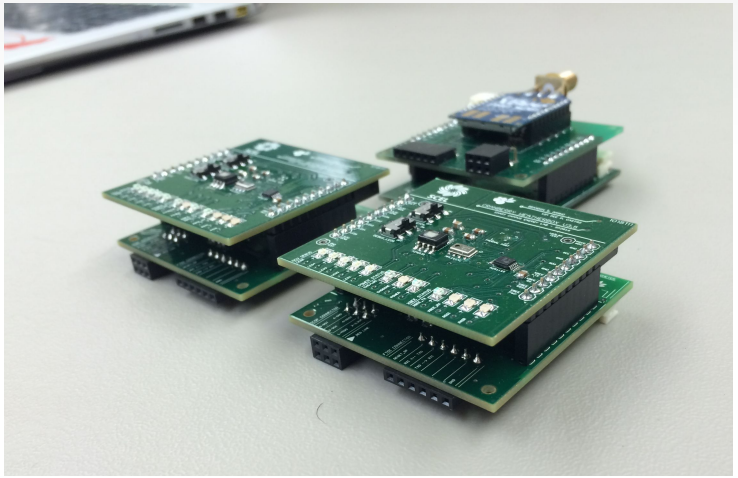
Joslyn Hamada

Team Member

- Senior
- Electrical Engineering
  - Electrophysics

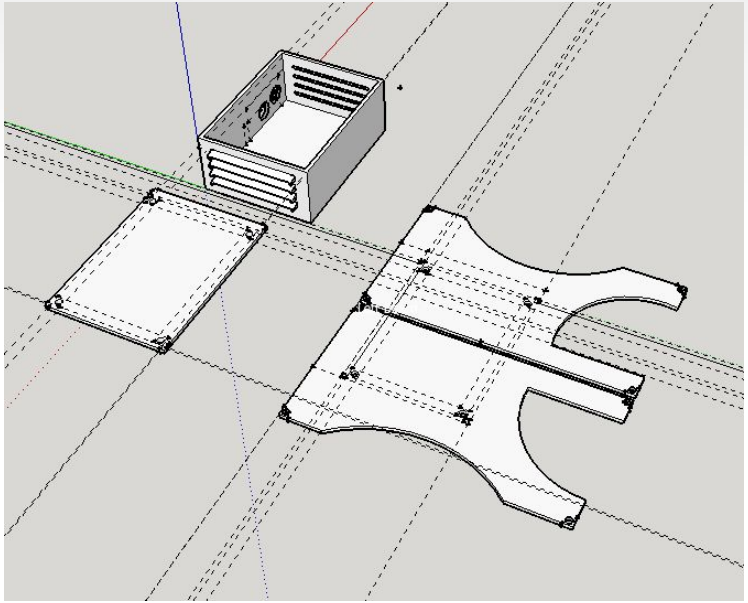
Cranberry Motivation

- Improve hardware of third generation Cranberry
  - Improve functionality
  - Maintain power consumption and small size
- Fourth generation weatherbox



Cranberry Design Overview

- 2.25” X 2.25” stacked boards
- Top: Sensor Board (4v)
- Bottom: Main Board (4v)
- Sensors:
  - Solar Irradiance, humidity, temperature, pressure
  - Version 4.1: GPS, real time clock
- Housing Design
  - Two main parts: box and panels
  - Mounting piece



Semester Goals

- Finish 2 Cranberry 4.0 and 2 Cranberry 4.1 weatherboxes
  - Populate, test, debug
  - 1 (of each) - Software
  - 1 (of each) - Deploy

Gantt Chart

	1/15	1/22	1/29	2/5	2/12	2/19	2/26	3/5/	3/12	3/19	3/26	4/2	4/9	4/16	4/23	4/30	5/7
Cranberry Update	X	X															
Implement GPS and RTC																	
Solder 2nd Board (4.0)		X	X														
Debug 2nd Board (4.0)																	
Deploy (4.0)																	
Order/Recieve Cranberry 4.1																	
Solder Cranberry 4.1																	
Test and Debug 4.1																	
Deploy (4.1)																	
Final Report																	

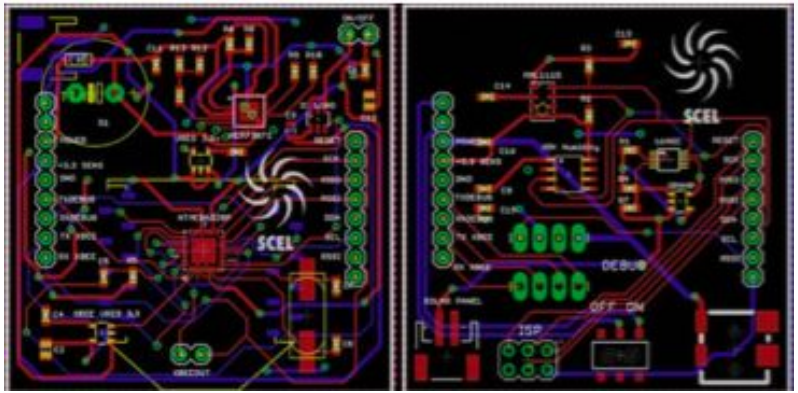
Team Progress

- Reviewed board design
- Continued debugging the boards
  - Fixed all the wiring issues on the 2nd set of boards
  - Tested the values
    - Both programmed, confirming values

Learning Expectations

- Improve soldering skills
- Improve debugging skills
- Learn about firmware & testing
- Teamwork

Potential Problems



- More unforeseen issues due to 4.1 board design
- Manually rewiring won’t be durable enough

Any Questions?