Cranberry

EE496 Proposal Presentation

Clyde Felix, Emily Kane, Emily Lum

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

- Senior
- Electrical Engineering
  - Electrophysics
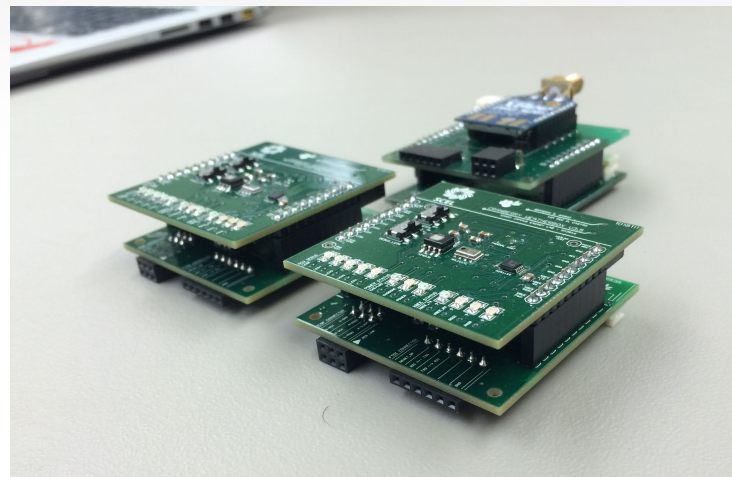
Introduction

Clyde Felix

Team Member

- Junior
- Electrical Engineering
  - Systems

Cranberry Motivation

- Improve hardware of third generation Cranberry
  - Improve functionality
  - Maintain power consumption and small size
- Finish last design of Cranberry
  - Stable

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
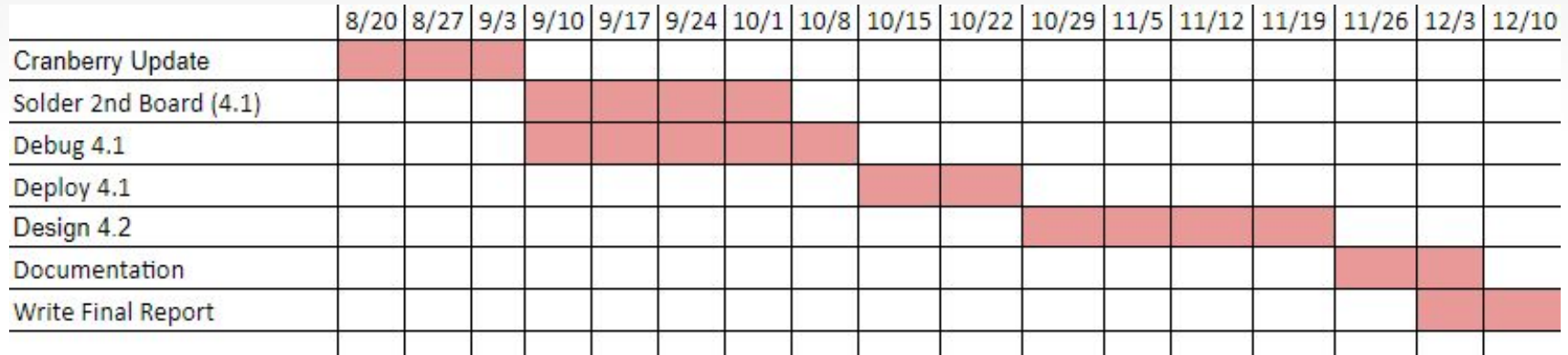 - Housing team

Semester Goals

- Populate, debug, and deploy Cranberry 4.1
- Start designing 4.2

Gantt Chart

	8/20	8/27	9/3	9/10	9/17	9/24	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3	12/10
Cranberry Update	■	■	■														
Solder 2nd Board (4.1)				■	■	■	■										
Debug 4.1				■	■	■	■	■									
Deploy 4.1									■	■							
Design 4.2											■	■	■	■			
Documentation															■	■	
Write Final Report																■	■

Team Progress

- Cranberry Update

- Continued debugging the boards

  - Fix voltage regulator issue

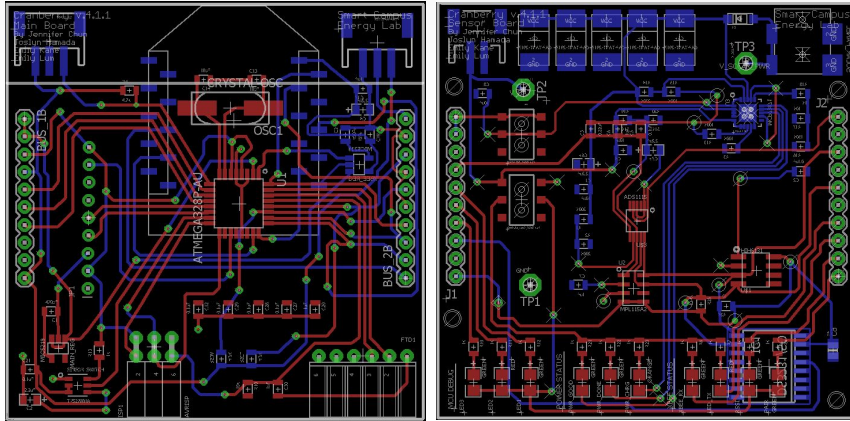 - Bootload boards

  - Find more issues

Learning Expectations

- Improve soldering skills

- Improve debugging skills

- Learn about firmware & testing

- Teamwork

Potential Problems

- Unforeseen issues due to 4.1 board design
  - Voltage regulator heating up

Any Questions?