

University of Hawaii at Manoa SCEL



Dragon Fruit

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Overview

- Introduction
- Project Overview
- Goals for Semester
- Schedule
- Potential Problems
- Learning Objectives
- Updates (Team's Progress)
- Next Steps



Introduction

Kevin Wong (Team Lead)

- Junior in EE (EP Track)

Tyler Yamauchi

- Junior in EE (EP Track)

Keane Hamamura

- Junior in EE (Systems Track)





Project Overview

Bleeding edge weatherbox design

- Addresses issues from Cranberry and Apple
 - Provide better sensor data
 - Lower power consumption
 - Lower cost



Goals for this Semester

Debug

- Ghost Voltage
- Excess current draw

House Circuit

Deploy

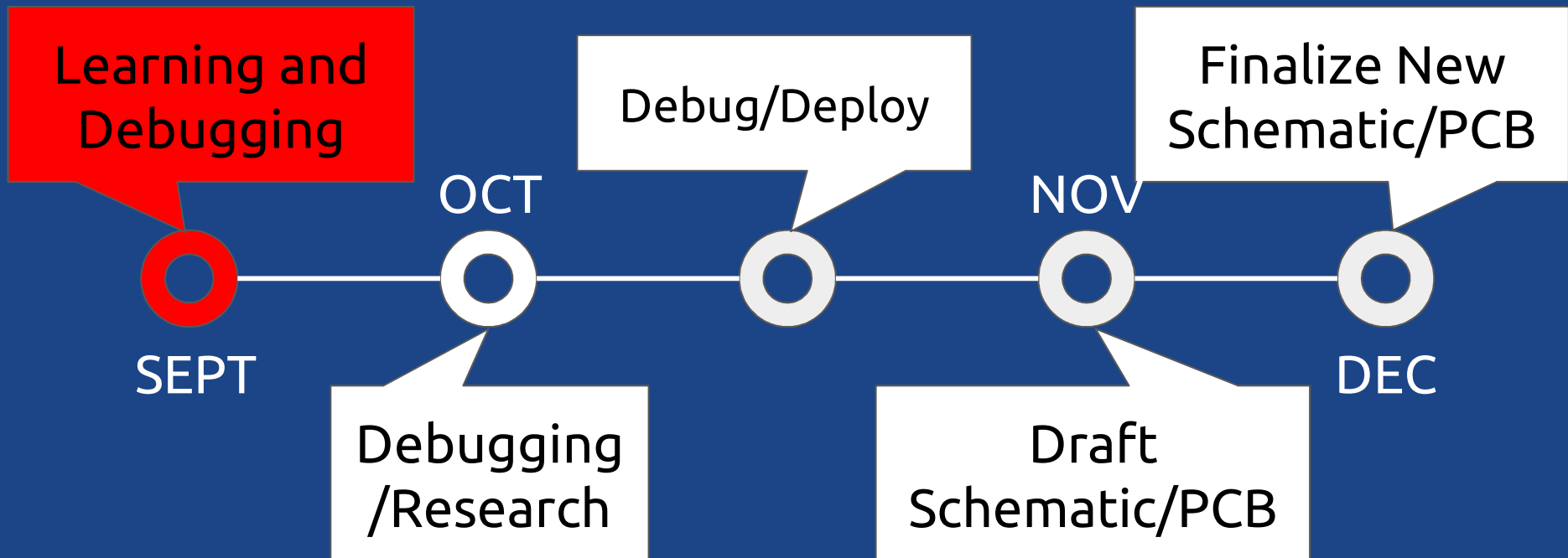
Redesign PCB

- GPS
- Real Time Clock
- More efficient parts





Schedule





Potential Problems

- Not able to solve ghost voltage and current draw
- Efficient parts might be more expensive
- PCB size increase
- Not able to redesign PCB in time
- Soldering Problems



Learning Objectives

- Learn hardware design tools (Eagle)
- Improve soldering techniques
- Improve Circuit/PCB Design Rules

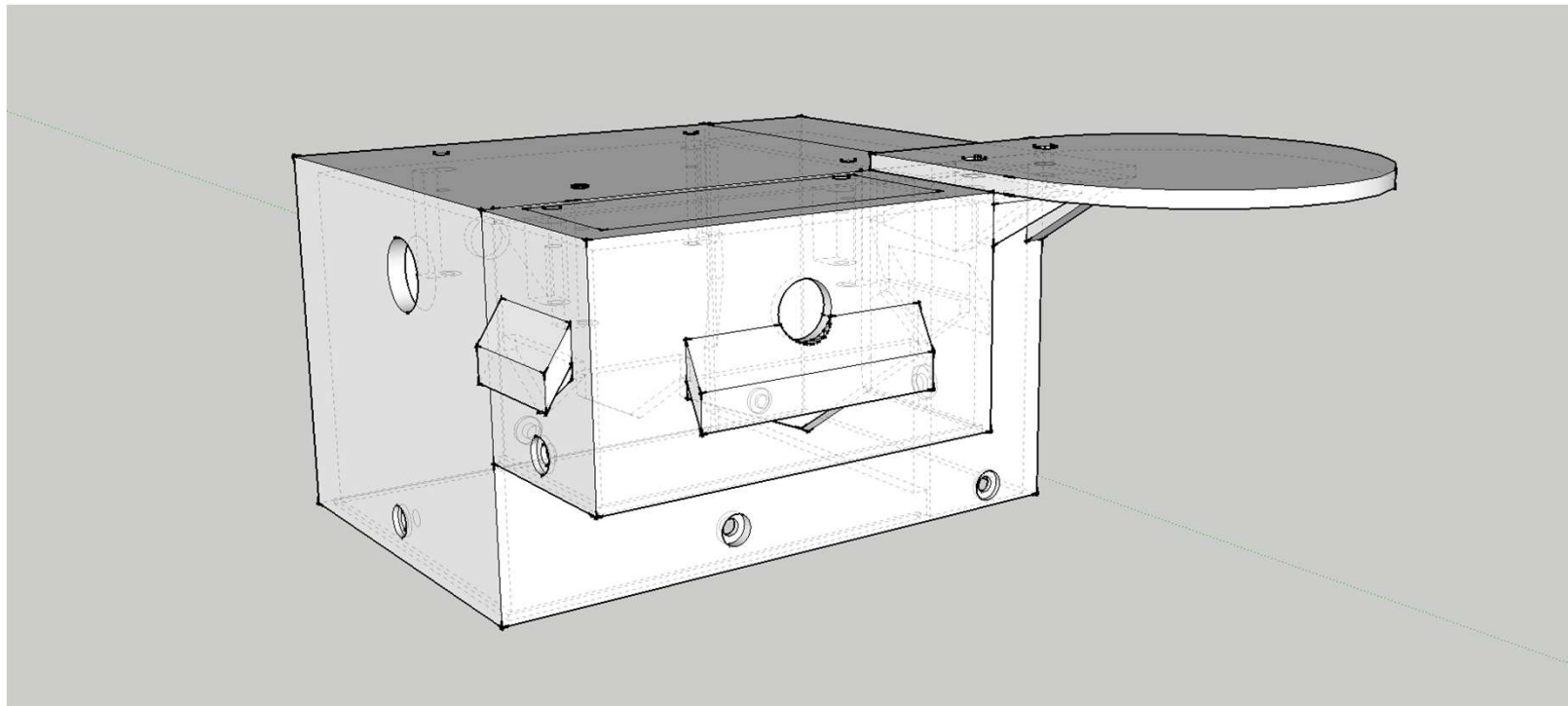


Updates

- Dragonfruit housing prototype completed
- Learning different components on the PCB board
- Reading datasheets and previous Dragon Fruit documents



Housing





Next Steps

- Continue learning how Dragon Fruit works
 - Lack of knowledge
- Debug circuit board
- Start research for GPS and real time clock
- Run performance tests on circuit



Questions?



Image Sources

<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>