

University of Hawaii at Manoa SCEL



Dragon Fruit Proposal Presentation



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Overview

- Team Introductions
- Project Motivation
- Board Overview
- Goals for Semester
- Potential Problems
- Team's Progress
- Gantt Chart



Project Motivation



*To design a weatherbox that maximizes
design quality, power efficiency,
and processing speed*



Goals for Semester

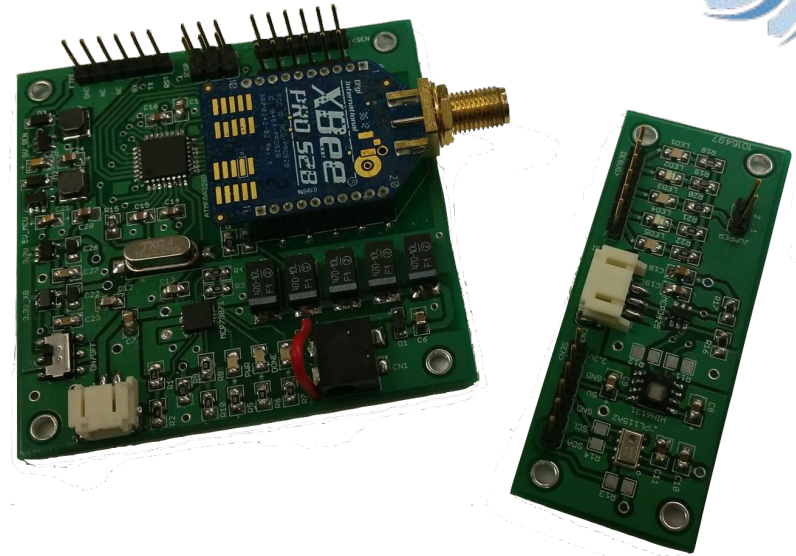
- Dragon fruit Version 4 PCB implementation
- Program and deploy any board version
- Gather accurate data





Potential Problems

- Transmission
- Programming
- Debugging

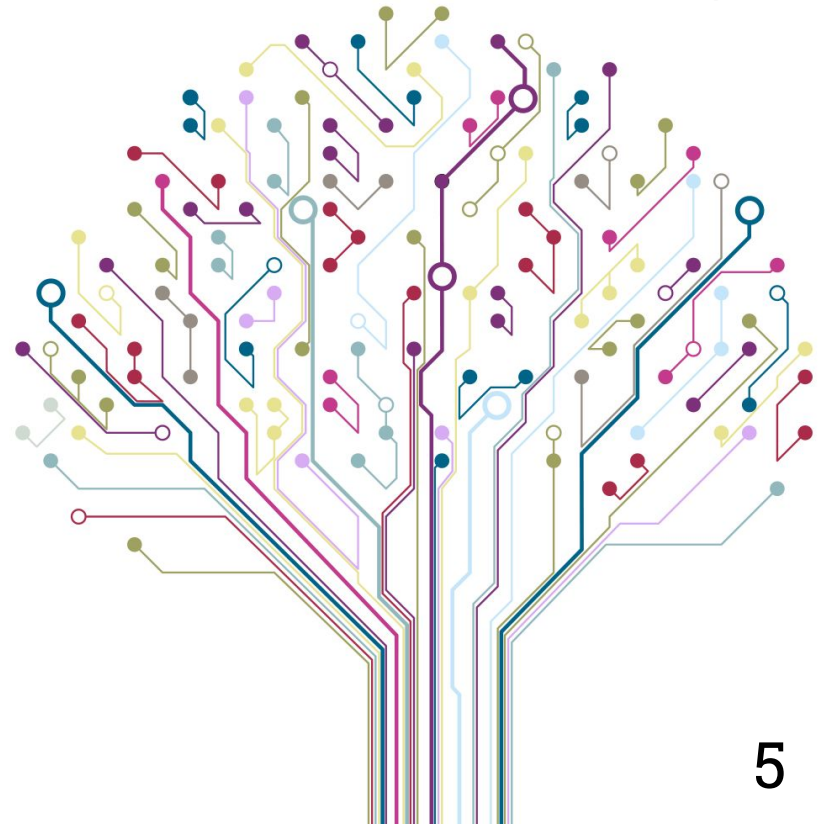


- Microprocessor and sensors running off of 5V
- Ribbon cable main board with sensor board



Learning Expectations

- Improve technical skills:
 - EAGLE PCB design
 - Soldering
 - 3D design
 - Circuit analysis
- Debugging experience

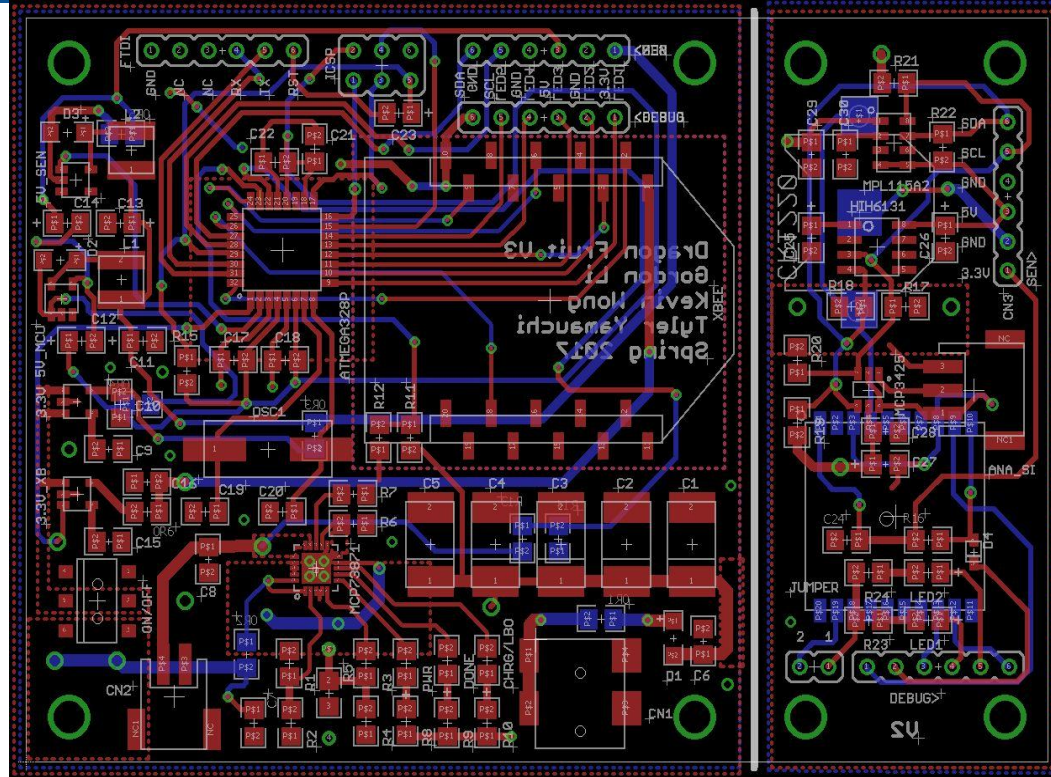




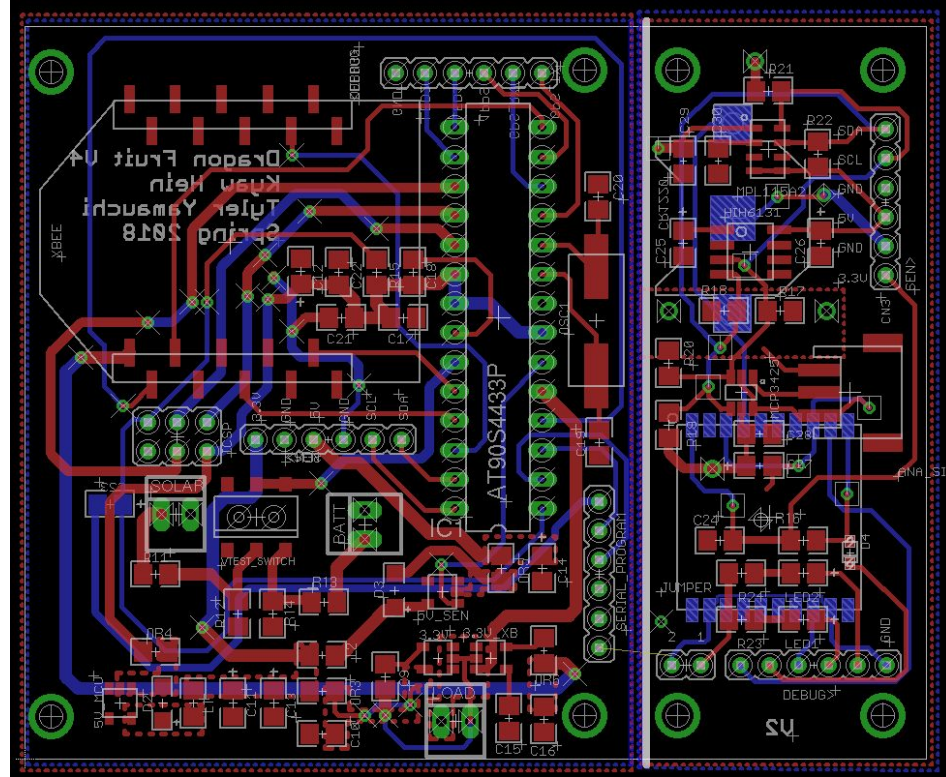
Team's Progress

- Version 4 of Dragon fruit PCB design “completed”
- Soldering new sensor boards

Team's Progress

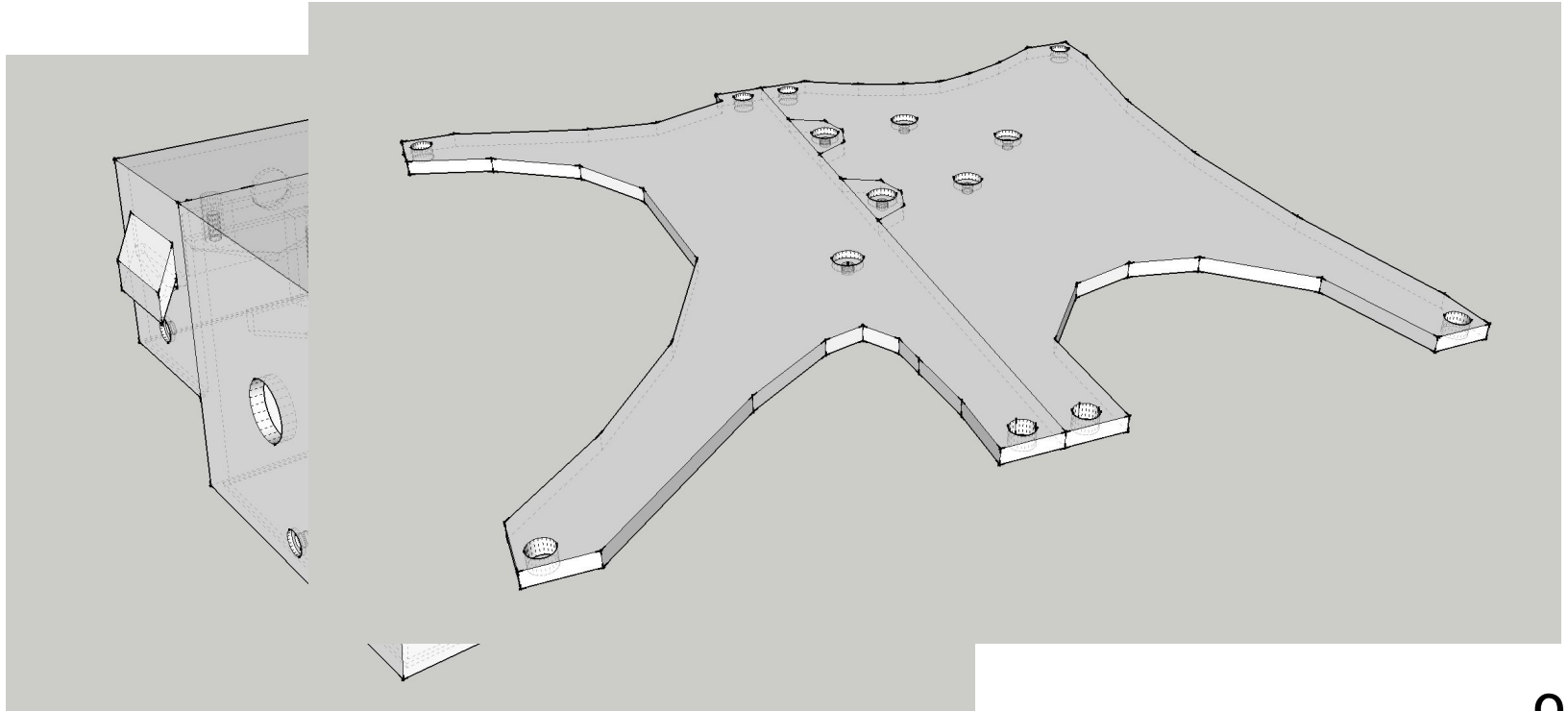


Team's Progress





Team's Progress



Gantt Chart



Confer with Andrew about programming (Gantt Chart)																	
Week	1	2	3	4	5	6	7	8	9	10	Spring Break	11	12	13	14	15	16
Date	1/15/2018	1/22/2018	1/29/2018	2/5/2018	2/12/2018	2/19/2018	2/26/2018	3/5/2018	3/12/2018	3/19/2018	3/26/2018	4/2/2018	4/9/2018	4/16/2018	4/23/2018	4/30/2018	5/7/2018
Presentations																	
Proposal																	
Preliminary Design (PDR)																	
Critical Design (CDR)																	
Final Design (FDR)																	
PCB (Version 4.1)																	
Analyze Board Design																	
Make Board Edits																	
Get Board Milled																	
Programming																	
Program Board v4																	
Housing																	
Make Edits																	
Print needed parts																	
Tests (Current Board)																	
Transmission/Battery																	
Current, Voltage, Diode)																	
Deployment (Version 2)																	
Report																	Report DUE!



Questions?



Image Sources

<http://cryptid-creations.deviantart.com/art/Daily-Paint-1081-Dragon-Fruit-Keeper-570702189>

<http://www.gimmesomeoven.com/wp-content/uploads/2014/03/Jambalaya-13.jpg>

<https://www.linkedin.com/in/george-zhang-b654918b/>

<http://orientautoservice.com/wp-content/uploads/2015/06/mechanic.png>

<https://static1.squarespace.com/static/55bd6bfae4b0c50a1d887185/t/55c7bd50e4b0334a77da1c83/1439153548590/mechanic.png>

