



Team Guava

Proposal

Presentation

F17



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Presentation Overview

- Introduction
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- Guava Progress S17
- Project Goals
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- Predicted Problems
- Questions



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Team Guava **Introductions**



Riley Cammack

Junior- 396

2nd semester



Kenneth Lauritzen

Junior - 396

2nd semester

CENG



Sawinna Huang

Junior - 396

2nd semester

EE -Systems



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SCEL Motivation

Guava is the fifth iteration in the weatherbox design. The main goal for Guava's weatherbox is to incorporate newer components into the existing SCEL weatherbox layout. The motivation of team Guava is to improve upon the recent generations by using a new processor.



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Guava Progress Spring '17

Reviewed the progress of our predecessors

- Read their final paper
- Went over their research of different sensors

Determined starting point of project

Decided on the **ATmega1284p**

- Bigger Flash Memory; (4x) 32 kB -> 128 kB
- Increased # of I/O Pins; (+9) 23 -> 32

Determined team roles



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Project Goals

Produce a self-sustaining environmental sensor module that will collect meteorological data

- Create a schematic
 - Properly integrate new processor
- Design and fabricate a printed circuit board
- Draft and build a weatherproof housing
- Test and Deploy the completed weatherbox



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Team Chocolate Cosmos

(Gantt Chart)

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Date	9/4/2017	9/11/2017	9/18/2017	9/25/2017	10/2/2017	10/9/2017	10/16/2017	10/23/2017	10/30/2017	11/6/2017	11/13/2017	11/20/2017	11/27/2017	12/4/2017	12/11/2017
Presentations															
Proposal		9/18/17													
PDR					10/14/17										
CDR									11/11/17						
Final												12/2/17			
PCB Design															
Schematic															
Board Layout															
Review															
Housing															
Build															
Fabrication Time															
Testing															
Reports															
Final Report															



Gantt Chart



Learning Expectations

PCB Designing and Layout

- Part Integration
 - Understand new processor and sensors
- Improve PCB design skills

Fabrication

- Soldering
- Weatherproofing Housing
- Documentation



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Predicted **Problems**

Continuation of past project

- Understanding documentation of previous team Guava
- No schematic
- Accidentally repeating work
- Locating required files

Other

- Ordering Parts
- Soldering skills



Thank you!
Any Questions?



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CREDITS

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