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Team Bumblebee

PROPOSAL PRESENTATION

Fall 2017

Advisor : Dr. Anthony Kuh



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Team Bumblebee Introductions

Isaiah Aribal

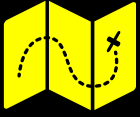
- ⊙ Senior-496
- ⊙ Electrical
Engineering
- Electro
Physics

Kayla Amano

- ⊙ Senior-396
- ⊙ Electrical
Engineering
- Electro
Physics

Rebecca Rupley

- ⊙ Senior-496
- ⊙ Electrical
Engineering
- Electro
Physics



Presentation Overview

- Motivation/Approach
- Project Goals
- Gantt Chart
- Predicted Problems
- Team Progress



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Motivation/ Approach



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The Bumblebee Weatherbox is the second generation communications module designed to relay meteorological data collected by the other weatherboxes. Its purpose is to increase the effective range of the weatherboxes.



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Project Goals

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- ⦿ Design and fabricate a circuit board
- ⦿ Design and build housing
- ⦿ Deploy and test
- ⦿ Do more extensive Xbee field tests

Future Goals

- ⦿ Have different networking modes
- ⦿ Better xbee calibration

Gantt Chart



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Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Sep-4	Sep-11	Sep-18	Sep-25	Oct-2	Oct-9	Oct-16	Oct-23	Oct-30	Nov-6	Nov-13	Nov-20	Nov-27	Dec-4	Dec-11
Presentations															
Proposal Presentation			Sep-23												
Preliminary Design Review						Oct-14									
Critical Design Review										Nov 10					
Final Presentation														Dec-2	
VIP poster session													Nov-30		
PCB Design															
Schematic															
Board Layout															
Review															
Fabrication/Assembly															
Fabrication Time															
Populating															
Testing															
Housing															
Design															
Fabrication															
Networking															
Final Report															



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Predicted Problems

- ⊙ Time Management
- ⊙ Learning Curve
- ⊙ Debugging
- ⊙ Populating board
- ⊙ Networking



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Learning Expectations

- Work well as a group
- Become proficient with EAGLE and other softwares
- Get a good understanding of connecting Xbees in a network



Team Progress

- Have a working breadboard design
- Able to relay packets



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QUESTIONS?