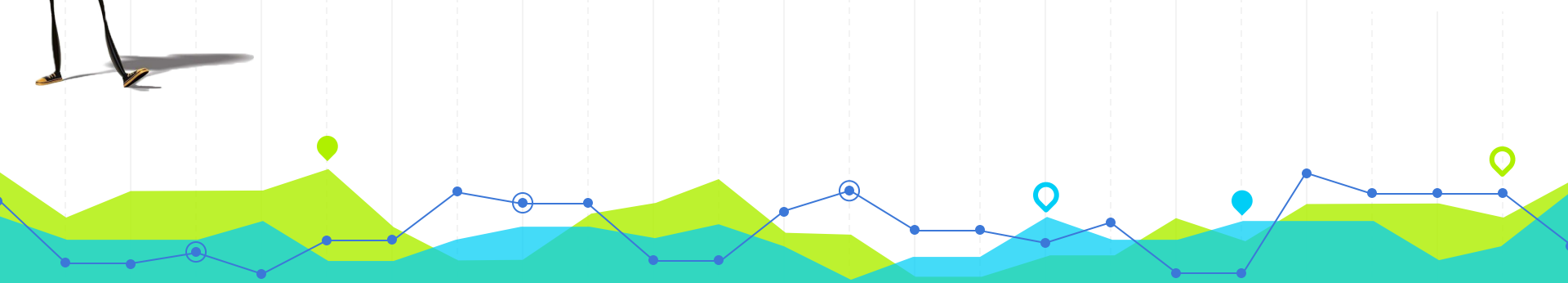




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Team Bumblebee

Fall 2017 Preliminary Design Review

Isaiah Aribal, Kayla Amano, & Rebecca Rupley



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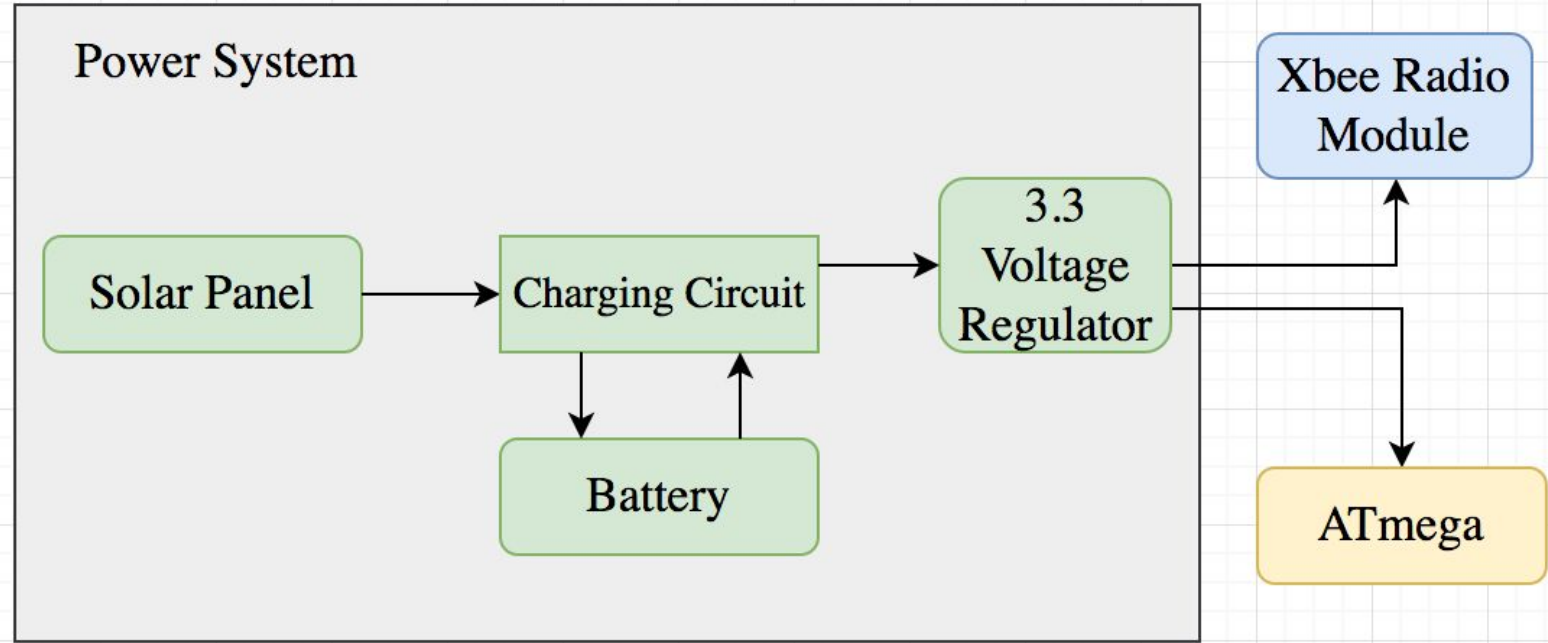
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Presentation Overview

- Block Diagrams
 - Power
 - Signal/Communication
- Team Progress
- Gantt Chart
- Schematic
- Resolved Problems
- Current Issues
- Goals for CDR



Block Diagram (Power)

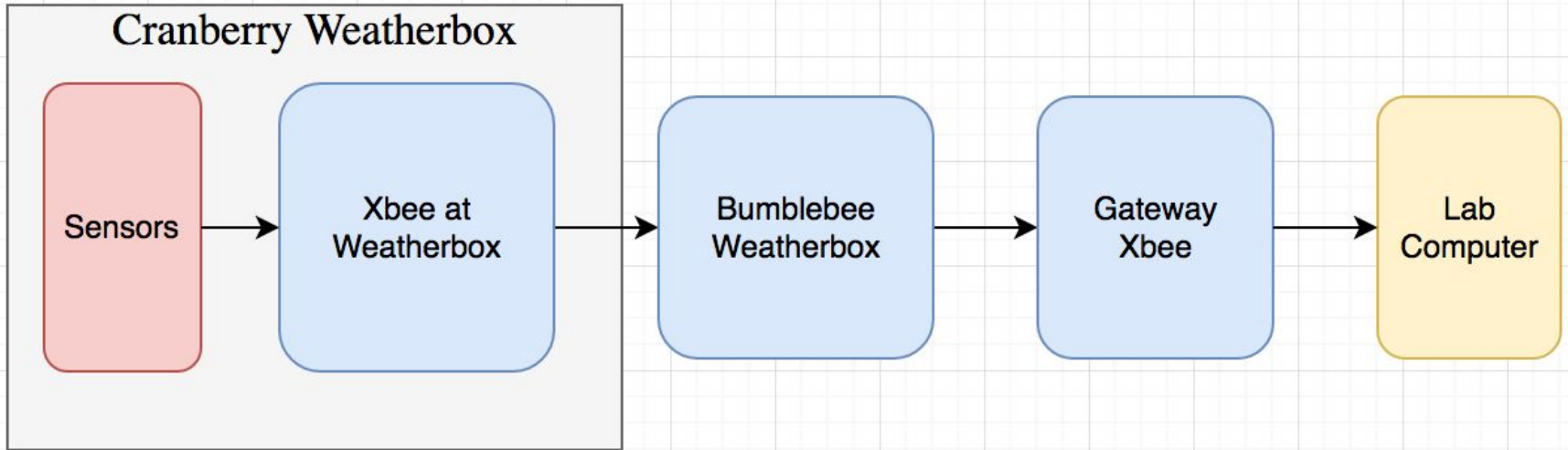




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Block Diagram (Signal/Communication)





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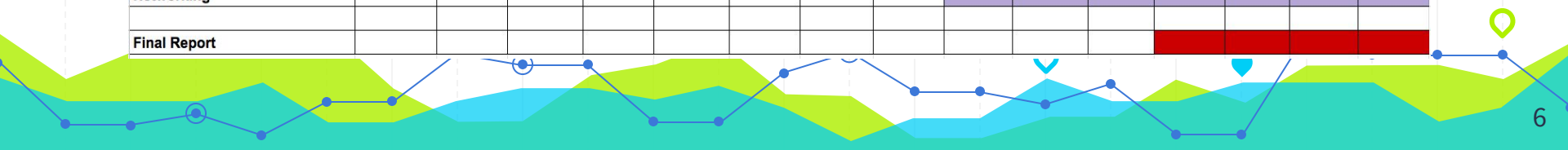
Team Progress

- Xbee communication tests
 - Computer to computer
 - Computer to arduino with xbee shield
- Finalized Design Choices
- Schematic completed
- Starting on PCB layout



Gantt Chart

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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Resolved Problems

- Reset button as a temporary fix
- Replaced wires on bare arduino
- Found additional libraries with the proper parts and packages
- Decoupling capacitors for steady voltage



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Problems

- Unable to program bare Arduino
 - Temporary fix: Hit the reset button while programming
- Unable to test new antennas
- Unable to add more debugging LEDs



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What Needs to Be Finished

- PCB Layout
- Populating Board
- Housing
- Field testing
- Weatherbox network



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QUESTIONS?

