

TEAM CHOCOLATE COSMOS

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WITH MENTORSHIP FROM EMILY LUM

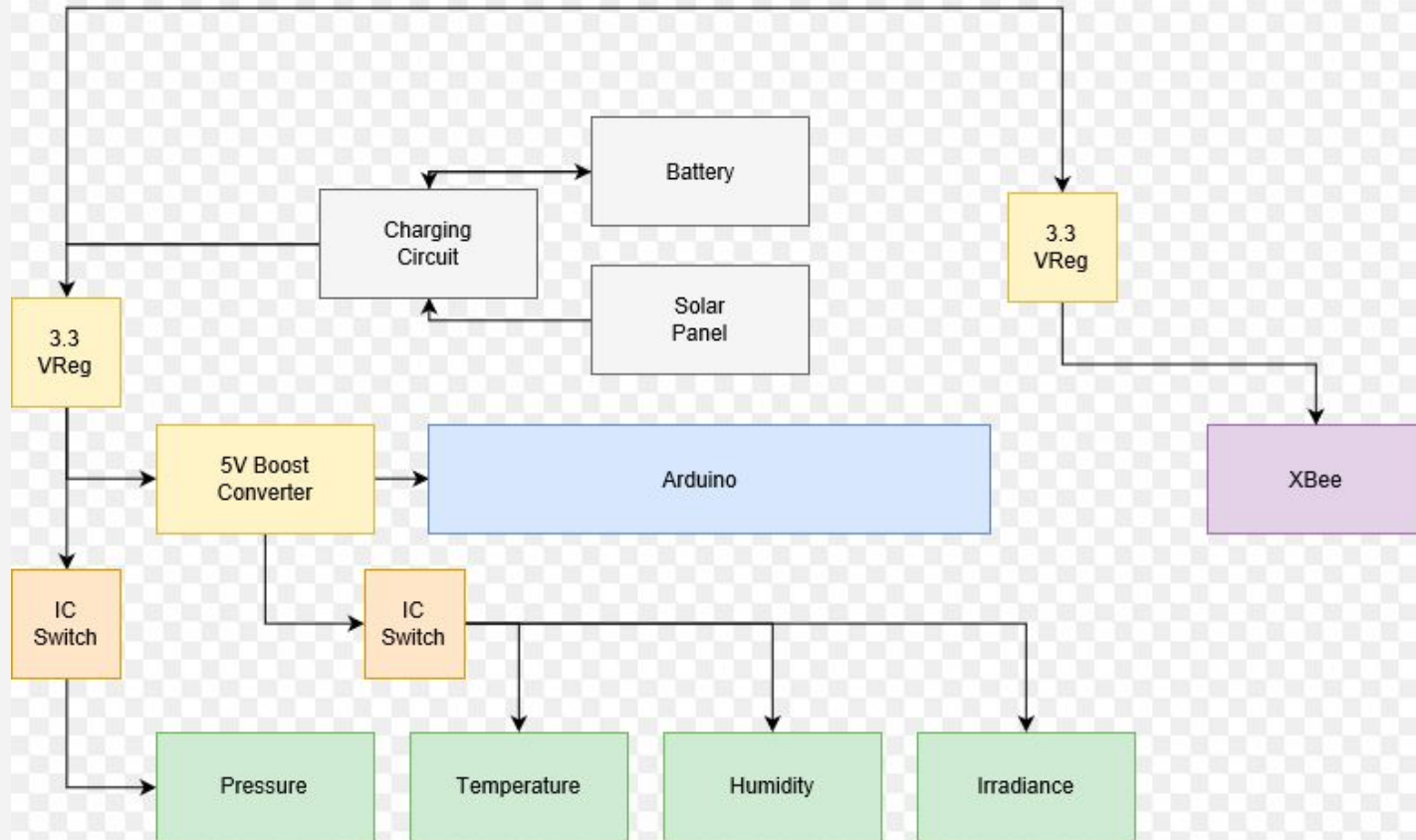
OVERVIEW

- Block Diagram
- Progress
 - Sensors, XBee, Bare Arduino
- Problems/Issues
- Updated Schedule



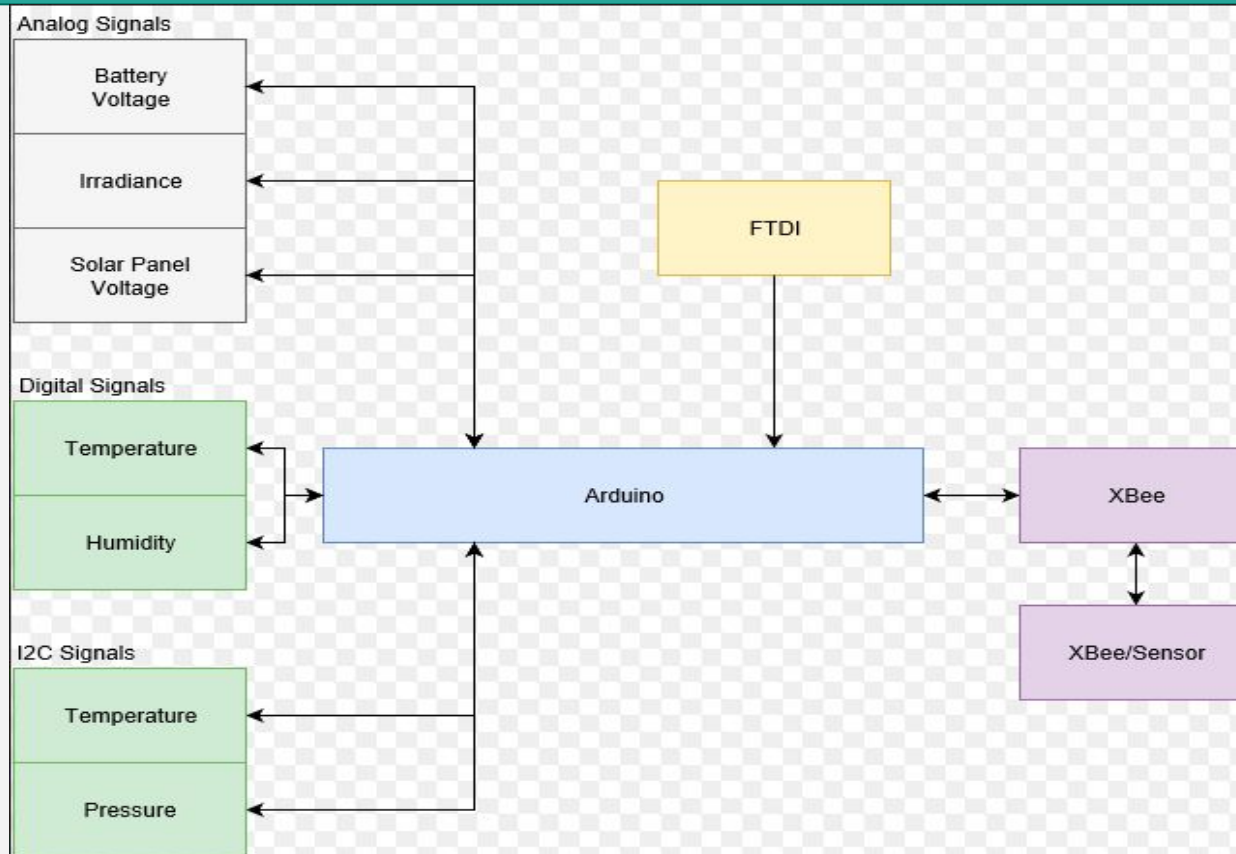


Block Diagram-Power





Block Diagram-Signal





Progress

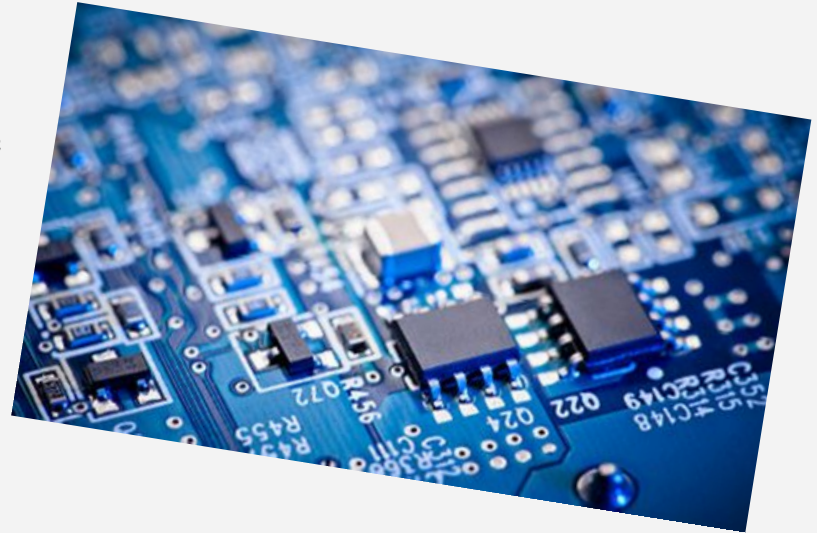
- ❖ Charging circuit
- ❖ Schematic
- ❖ Bare Arduino
- ❖ Xbee
- ❖ Sensors





Sensors

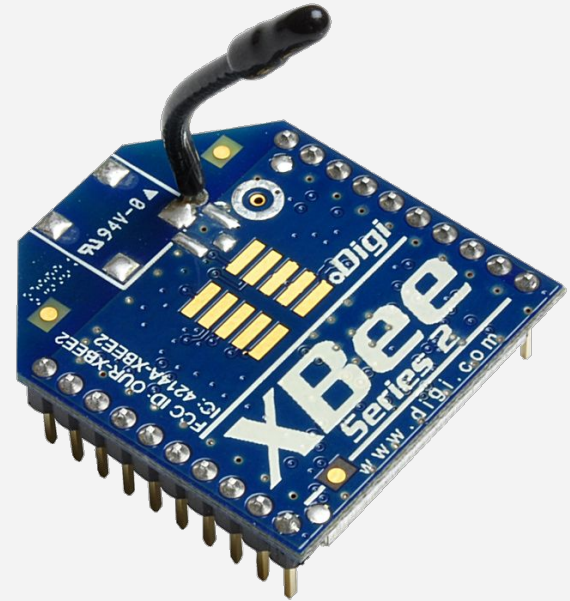
- ❖ Temperature/Humidity
- ❖ Temperature/Pressure/Altitude
- ❖ Solar Panel
- ❖ Solar Irradiance





Xbee

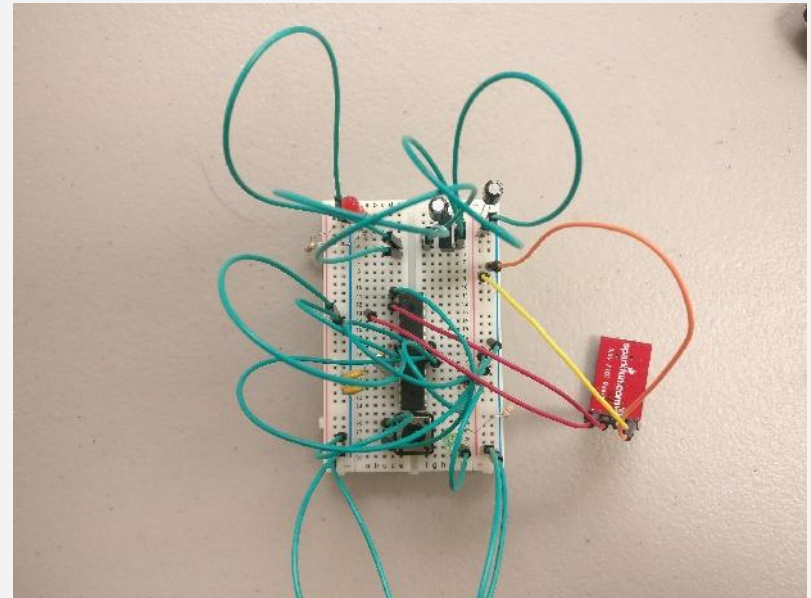
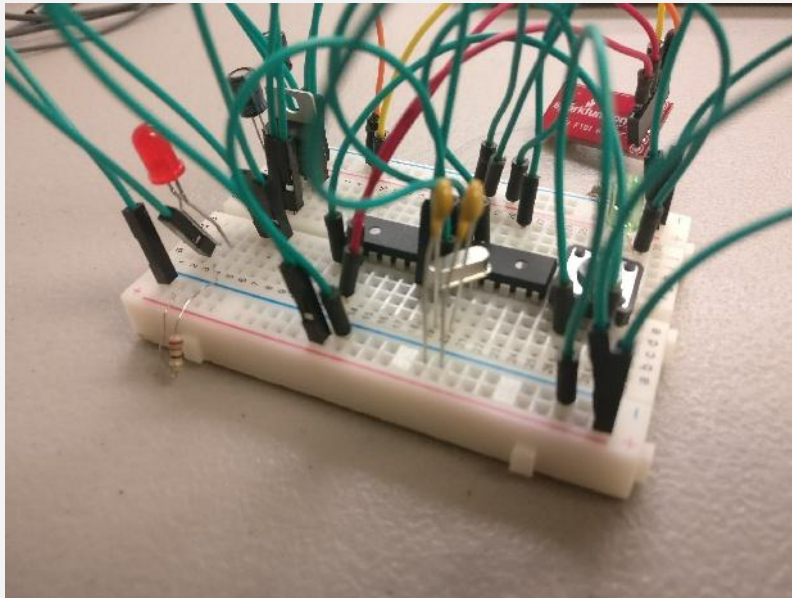
- ❖ Xbee to Xbee
 - Sent a simple package
- ❖ Arduino to XBee
 - Arduino sent a simple message





Bare Arduino

- ❖ Built Bare Arduino on a breadboard
- ❖ Tested using Blinky Board example





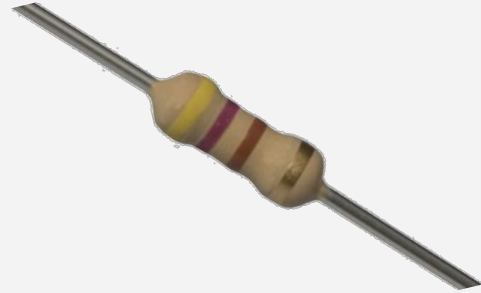
Problems/Issues

❖ Bare Arduino

- Used the wrong resistor
- Placed the LED in the wrong direction

❖ Schematic

- Difficulty finding the right packages and libraries for some parts





TIMELINE

Team Chocolate Cosmos																	
(Gantt Chart)																	
Week	1	2	3	4	5	6	7	8	9	10	Spring Break	11	12	13	14	15	16
Date	1/16/2017	1/23/2017	1/30/2017	2/6/2017	2/13/2017	2/20/2017	2/27/2017	3/6/2017	3/13/2017	3/20/2017	3/27/2017	4/3/2017	4/10/2017	4/17/2017	4/24/2017	5/1/2017	5/8/2017
Presentations																	
Proposal					2/11/16												
Design								3/4/17									
Final													Tentative*				
Demonstration													Tentative*				
Training																	
Git/GitHub	Tutorials	Tutorials	Tutorials														
Arduino/Bare Arduino	Tutorial	Tutorials	Tutorials			Bare Arduino											
Eagle	Tutorial	Tutorial	Tutorial														
Modules																	
Microprocessor																	
Sensors																	
Charging Circuit																	
Xbee																	
Build																	
Overall System Firmware																	
System Integration																	
Design/Print PCB																	
Housing																	
Test																	
Debug																	
Reports																	
Final Report																	

END

QUESTIONS?



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