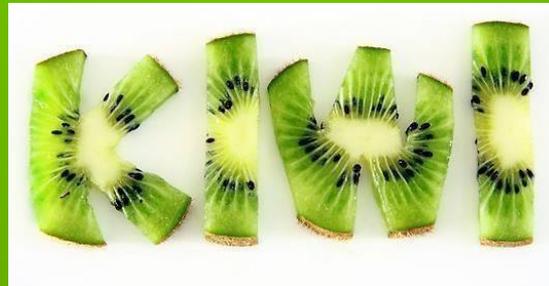


Critical Design Review (Weatherbox)

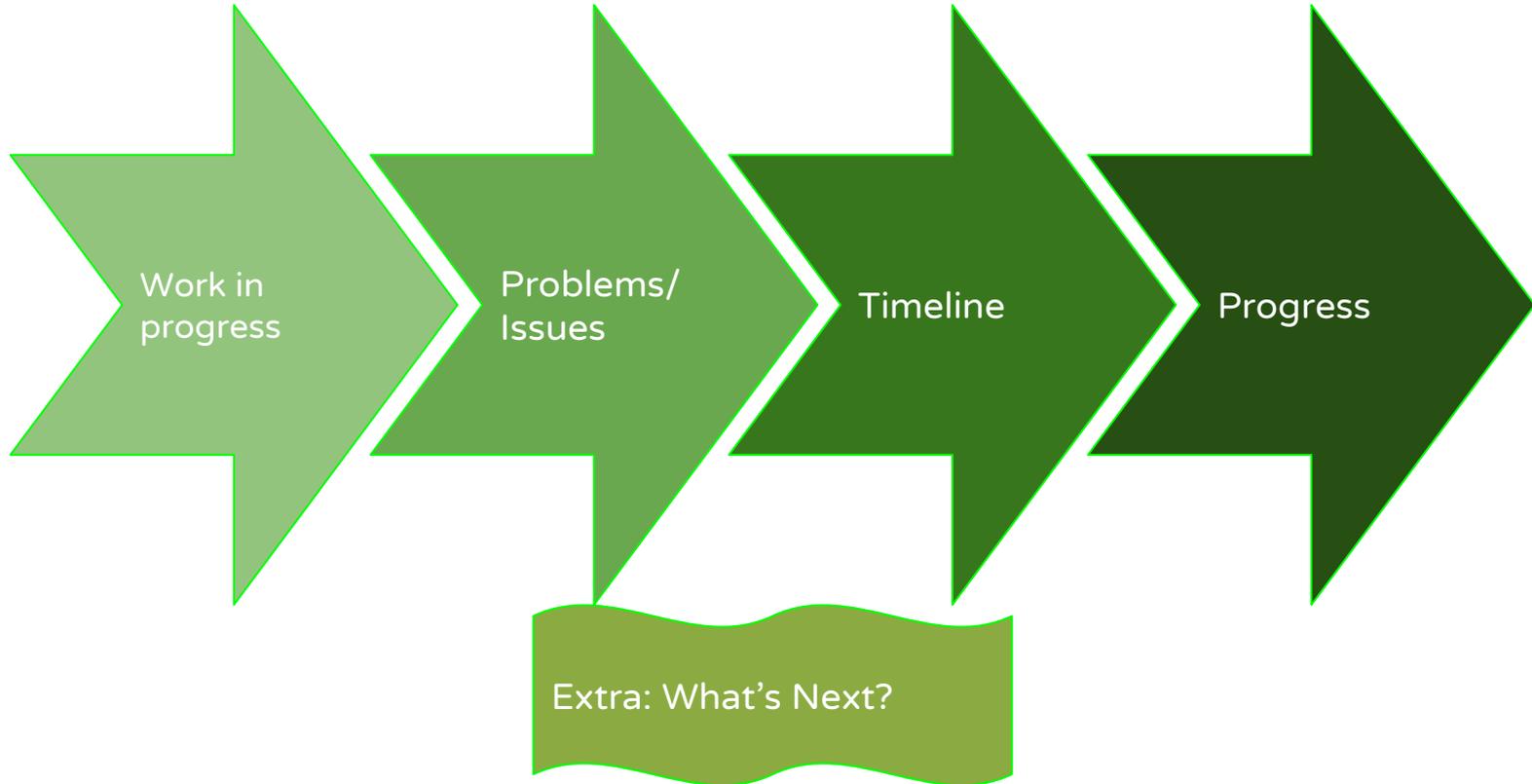
Advisor: Dr. Kuh

Team

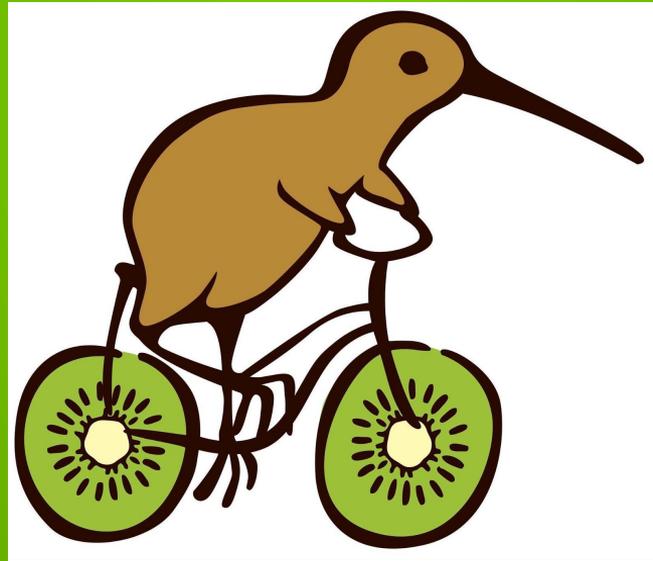




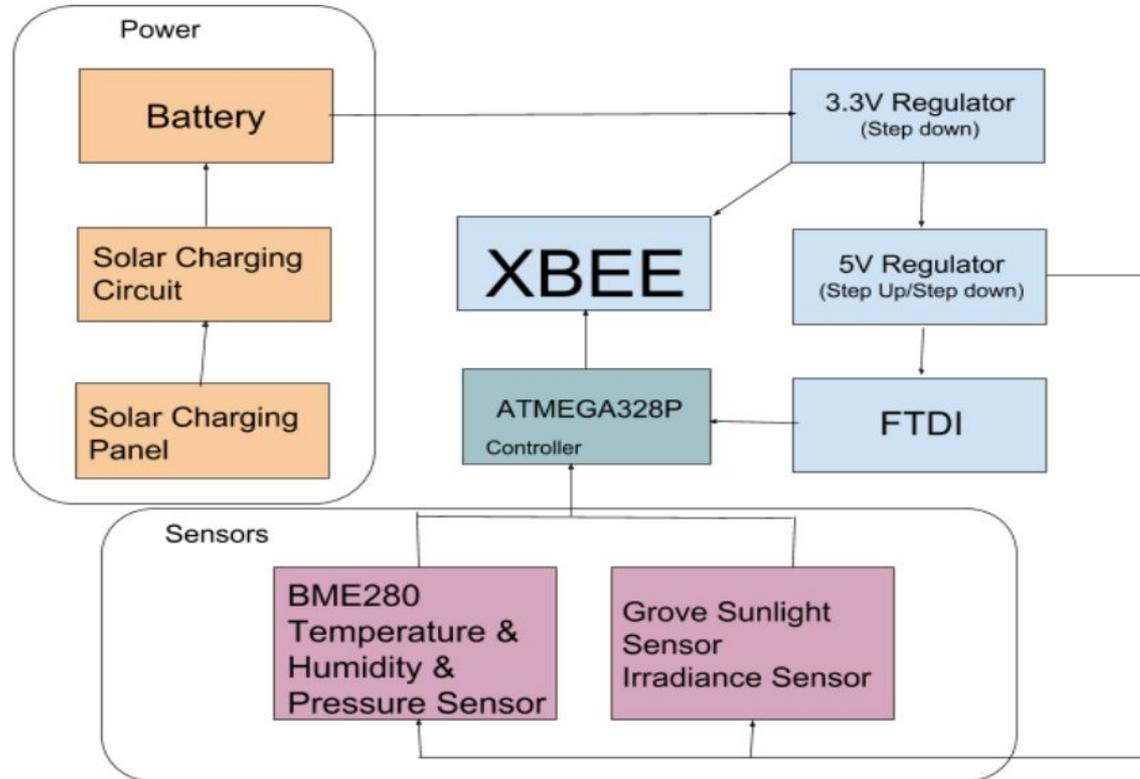
Overview



What's Kiwi working on?



Block Diagram



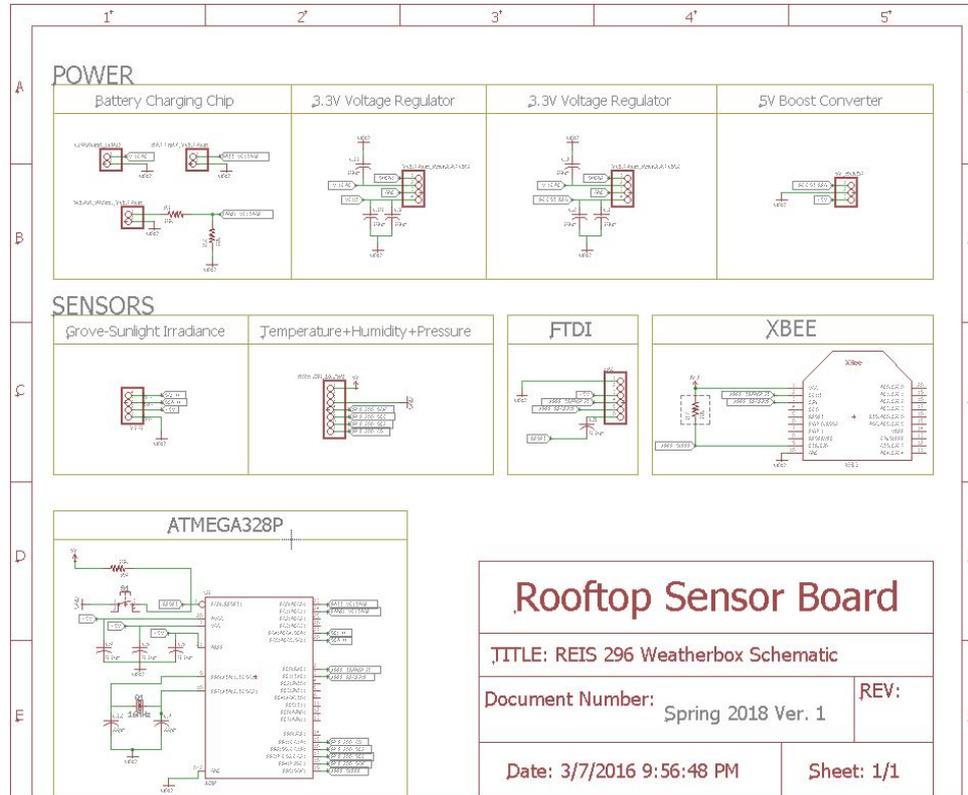


Pseudo Algorithm

- × Receive data from sensors (BME280)
- × Convert data to packets
- × Send data from Weatherbox to Communicator via XBEE

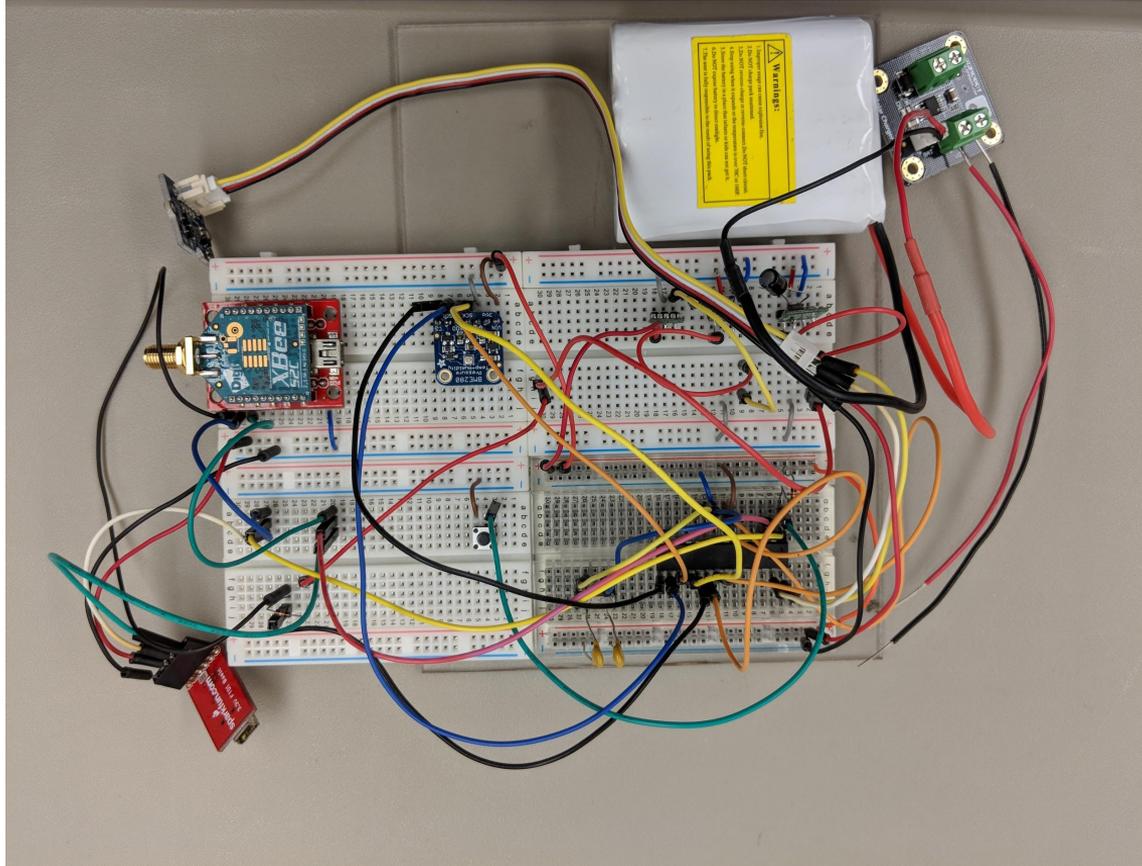


Schematic





Kiwi's Breadboard





Kiwi's Future Goals

Yet to work on:

- × Software
- × Making our housing
- × Code & PCB skills
- × Debugging

Overall Goal:

Our goal is to create an environmental sensor that can detect weather patterns in an area.



Kiwi's Problems/ Issues

- 🌐 Wiring the breadboard (Connecting the BME280 and Grove Sunlight Sensor)
- 🌐 On Eagle, we needed to make changes according to our new wiring with the ATMEGA328P



Kiwi's Timeline

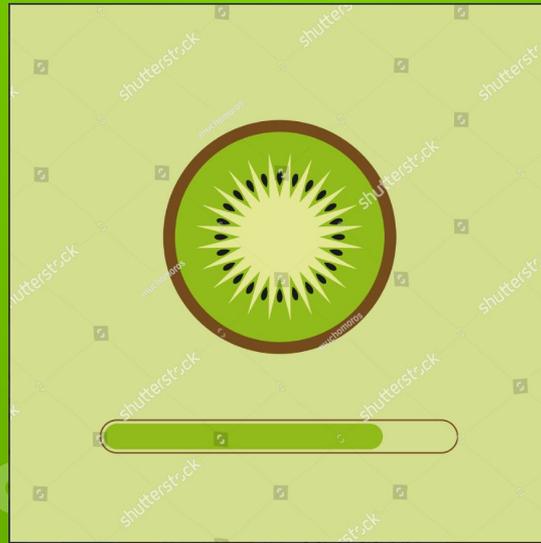




	Project														
	(Gantt Chart)														
Week	1	2	3	4	5	6	7	8	9	10	SpringBreak	11	12	13	14
Date	1/19/2018	1/26/2018	2/2/2018	2/9/2018	2/16/2018	2/23/2018	3/2/2018	3/9/2018	3/16/2018	3/23/2018	Week 11	4/6/2018	4/13/2018	4/20/2018	4/27/2018
Presentations															
Proposal															
Design															
Final															
Demonstration															
Training															
Git/GitHub															
Arduino/Bare Arduino															
Eagle															
Modules															
Microprocessor															
Sensors															
Charging Circuit															
Xbee															
Build															
System Integration															
Overall System Firmware															
Design/Print PCB															
Housing															
Test															
Debug															
Reports															
Final Report															



Kiwi's Progress





Kiwi's Progress

Soldering

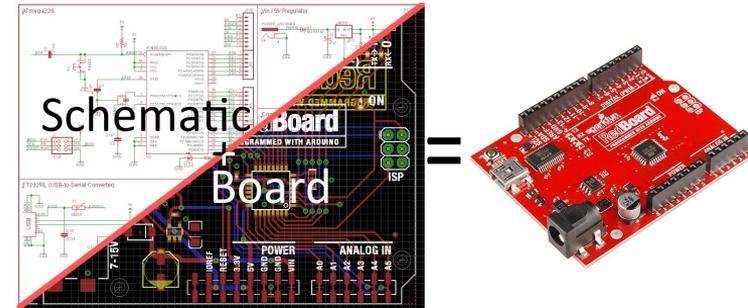
Finished soldering the Voltage Regulators 3.3 V(2) and 5 V and BME280.

Eagle

Updated and Completed Eagle Schematic with new parts.

Breadboarding

Finished with the building the breadboard.





What's Next, Kiwi?

Software Coding

Download software onto finished breadboard.

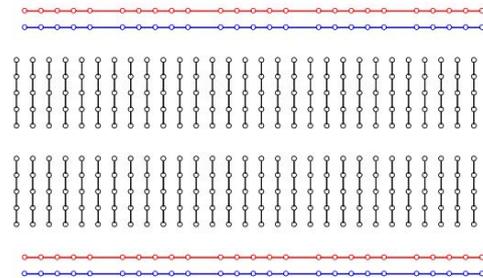
Breadboard (Software) Debugging

After downloading the software, we'll be testing it out and debugging.



PCB Design

Electronically connecting components using pads onto sheet





Thanks!

Any questions?