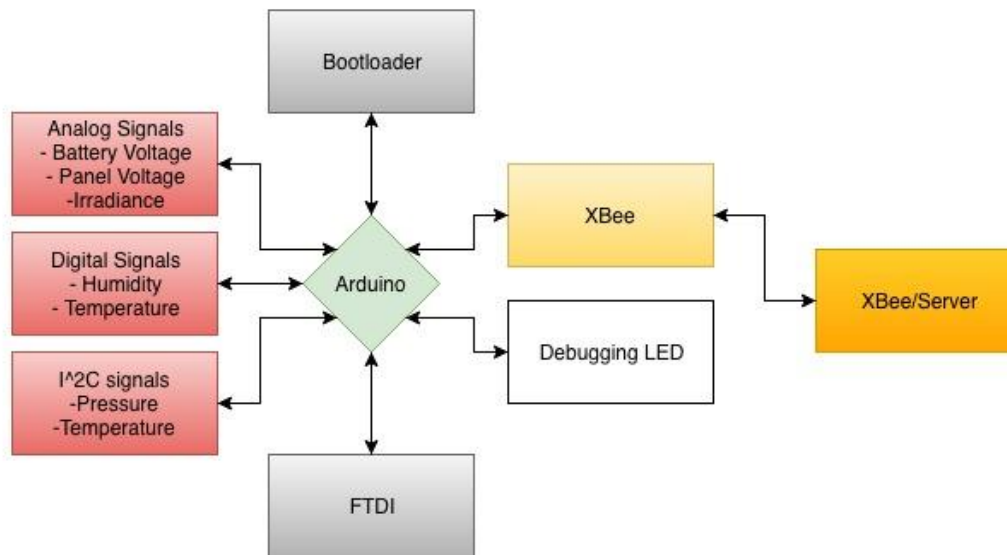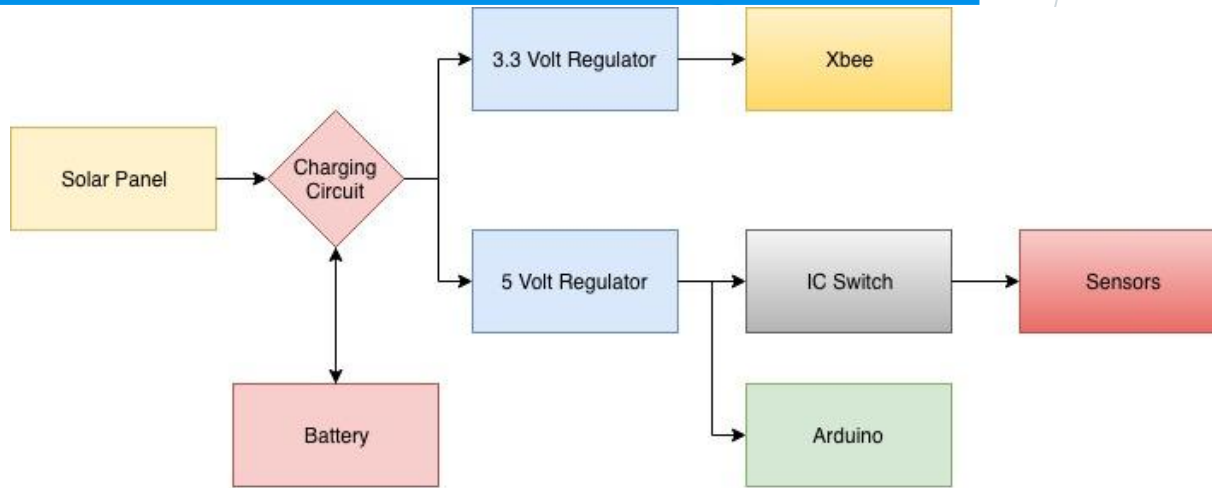# Preliminary Design Review

## By Team Snapdragon
### Kyle Chan, Jonathan Lau, Akira Vernon

# Outline

◎ Overall Block Diagram
◎ Assignment of Tasks
◎ Problems
◎ Progress since the proposal presentation
◎ What you have yet to finish
◎ Timeline/Schedule

# Overall Block Diagrams

# Splitting of Tasks

◎ **Kyle**
- ○ **Eagle Schematics**
- ○ **PCB Design**
- ○ **System Integration**
- ○ **Testing**

◎ **Jon**
- ○ **Sensor Codes**
- ○ **Housing Design**
- ○ **System Integration**
- ○ **Testing**

◎ **Akira**
- ○ **XBee Code**
- ○ **Housing Design**
- ○ **System Integration**
- ○ **Testing**

# Problems

◎ Revising PCB Design
- Some parts were unavailable
- Tant caps replaced with Ceramic caps

◎ Waterproofing of Housing
- Implementing a weather box that opens from the bottom
- Still researching on other ways to prevent water from leaking in

# Progress

- ◎ Completed the PCB Design
- ◎ Started housing design
  - ○ Exploring several different designs
- ◎ Connected two solar panels together.
  - ○ Finish testing with charging circuit

# Yet to Finish..

◎  Implementing all the sensors with the XBee
◎  Soldering
◎  3D Printed Housing
◎  Mill PCB

# Gantt Chart

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

*Any Questions?*