



Preliminary Design Review

Team Avocado Weatherbox (EE296)







Overview

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- Work Distribution
- Block diagram
- Progress
- Problems/Issues
- Upcoming Tasks
- Timeline/Schedule
- Questions





Work Distribution

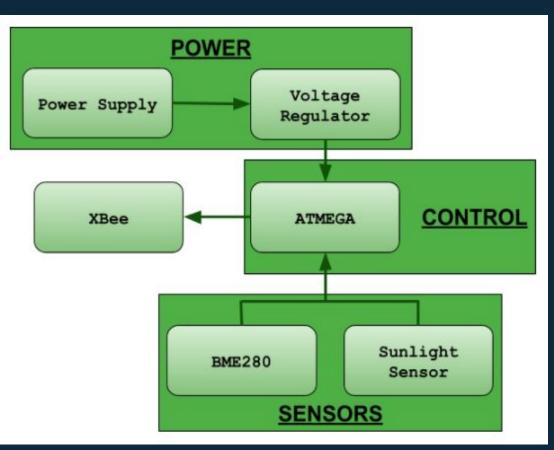
- Rammell & Sharmaine: Hardware
 - Breadboard
- Clyde: Software
 - Eagle, Codes





Block Diagram











Progress

- XBee Tutorial
- Eagle Tutorial
- Received parts
- Schematic
- Currently working on Arduino breadboard





Schematic

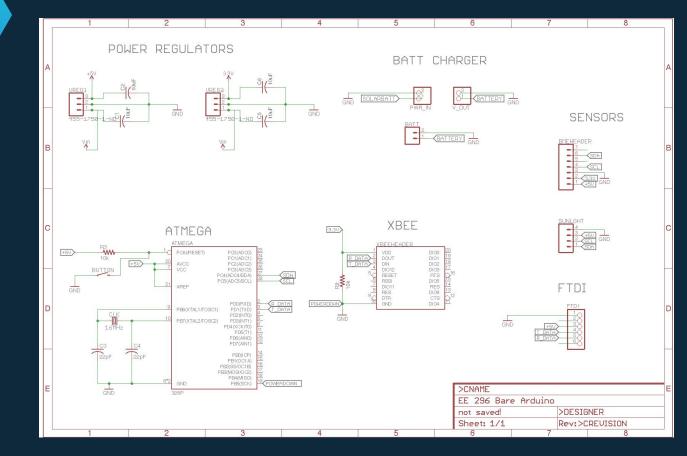
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Problems/Issues

- XCTU Issues
 - o Buggy
- Old Schematic
 - Implementing new sunlight sensor/BME280
 - Bare Arduino







Upcoming Tasks

- Eagle library with own parts
- Schematic
- Breadboard
- Program sensors together
- Design PCB
- Housing

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Timeline/Schedule

| Clyde F., Rammell T., Sharmaine J. | | | | | | | | | | | | | Te | ean | n Al | 100 | aD | 0 | | | | | | | | | | | | |
|---------------------------------------|---------------------------------------|------|------|------|------|-------------|-----|-----|------|------|------|------|---------|-----|------|---------|------|-------|------|---------|---------|------|------|-------|----------|----------|------|------|-----|----------|
| Week | 1 2 3 1/16 1/18 1/23 1/25 1/30 2/1 | | | | | | 14 | 4 5 | | | | 6 7 | | | 8 9 | | | 10 11 | | | 1 | 1 | 2 | 13 14 | | | 4 | 15 | | |
| Day | 1/16 | 1/18 | 1/23 | 1/25 | 1/30 | 2/1 | 2/6 | 2/8 | 2/13 | 2/15 | 2/20 | 2/22 | 2/27 | 3/1 | 3/6 | 3/8 | 3/13 | 3/15 | 3/20 | 3/22 | 4/3 | 4/5 | 4/10 | 4/12 | 4/17 | 4/19 | 4/24 | 4/26 | 5/1 | 5/11 |
| Tutorials | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arduino | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ~~~~ |
| Github | | | | | | | | | | | | | | - 8 | | 3 | | 1 | | | | - 12 | | | | | | | | - 3 |
| Eagle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Presentations | | | | | | | | | | | | | | | | | | | | | | | | Q | | | | | | |
| Proposal Presentation | | | | Ĩ. | | | | | | | | | | | | | | | | | | | | | | | | | | ~~~~ |
| Preliminary Design Review | - | | | | 1 | 1 3 | | | | | | | | 1 | | 8 | | 1 | | | 1. 1 | | | 8 - 3 | | | | | | - 3 |
| Critical Review | | | | | | | | Į | | | | | | | | Į. | | | | | | | | | | | | | | |
| Final Presentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Modules | | 1 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | Ĩ | | | | <u> </u> |
| BME280 Sensor | | 5 | | | 1 | 8 | | | | | | | 1 | | | | | | | | | 10 | | S | | 1 | | S | | |
| Solar Irradiance Senor | | | | | 1.1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Microprocessor | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XBee | | 1 | | | | | | | | 1 î | | | 0 | | 11 | | | 1 | | i i i i | | 1 | | | | <u> </u> | | 1 | | |
| Charging Circuit | | | | | 2 | | | - | | | | | | | | 1 I I I | | | | | C | | | ñ - 1 | | | | | | |
| Battery | 1 | 1 | | 1 I | 1 | | | | | 1 | | | | | | i - 1 | 1 | 1 | | | ę († | 1 | | 6 I | () (| 1 | | | | |
| Solar Panel | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Build | | 1 | | | | 1 | | | | 0 | | | | | | | | 1 | | | | 1 | | | | 1 | | | | |
| Eagle Schematic Design | | | | 1 | - | | | 1 | | | | 12 | | | | S | | | | | C | | | 1 | | | | | | |
| Design PCB Layout | | | | | 1 | | | | | 1 | | | 1 | 8 | | - | | E. S | | | i i | | | 6 I | 1 | 1 | | | | |
| Software/Code | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Breadboarding | | 1 | | | | | | | | | | | | | | | | | | | | | | | () | | | | | |
| Testing/Debuging | | S. | | 1 | 1 | · · · · · · | | 1 | | 0 | | 2 | <u></u> | | | | | | | | | | | | | | | 8 | | |
| Final Report | | 3 | | | | | | | | | | | | 8 | | | | 5 | | | | 8 | | | | | | | | |

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QUESTIONS?

