
Preliminary Design Review

Firmware

Smart Campus Energy Lab
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Updates

- Switched from own I2C code to pre-made libraries
- All sensor readings from Dragonfruit
 - Requires verification
- Sensor readings from Cranberry:
 - No battery voltage readings
 - No panel voltage readings
 - No solar irradiance readings
 - Sensor not in, working with Cranberry for an alternative test
- Pair of XBees configured and prepped for Transmit module testing

Obstacles

- I2C Code (Resolved)
 - Many configurations for each individual device
 - Pre made libraries already account for such configurations
- Cranberry sensor readings (Resolved)
 - Reset wire connected to board, continuously resetting
 - Removed wire and the readings occurred
- Verifying all sensor readings
 - No standard to compare to
 - Planning a test for next week

Remaining Work (Weatherboxes)

- Verify Transmit module - Dragonfruit, Cranberry
- Alternative for verifying Cranberry Pyranometer ADC code
- Implement 2nd temperature sensor - Apple
- Full integration

Goals (Spring 2016)

- Full integration of Firmware to deploy each generation
- Improve documentation
 - Hand written notes -> Wiki
- Error Code Library
- Unit Tests

Updated Schedule

Weatherbox Project											
(Gantt Chart)											
Week	6	7	8	Spring Break	9	10	11	12	13	14	15
Date	2/29/2016	3/7/2016	3/14/2016	3/21/2016	3/28/2016	4/4/2016	4/11/2016	4/18/2016	4/25/2016	5/2/2016	5/9/2016
Firmware											
Full Integration - Apple											
Sensor - Cranberry											
Transmit - Cranberry											
Full Integration - Cranberry											
Sensor - Dragonfruit											
Transmit - Dragonfruit											
Full Integration - Dragonfruit											
Verification of Sensor Values											
Unit Tests											
Error Code Library											
Debug/Test											

Questions?
