
Light of the World

Altura, Appleton, Baur, Yurkovich

Meeting Minutes - 1.28.13

Progress from this week:

- ❖ James and Joe started looking at documentation from microchip on interfacing with TCP/IP daughter board
- ❖ Joe and Sean worked at bringing up demo from Microchip on the PICDEM breakout board.
- ❖ Joe also looked into security: ND-secure seems off the table because it uses WPA Enterprise, but WEP and open-security networks are supported.
- ❖ Brian investigated buck and flyback converters, deciding to go with a buck converter due to simplicity
- ❖ Brian also found bulbs from Cree that should suit our system (\$10 each, 15W, forward voltage 40 V)

Decisions:

- ❖ We will work with the Cree LED bulb arrays that Brian found (at least for prototyping stage)
- ❖ Sean will take charge on packaging concerns (space availability, component arrangement, heat sinking, etc.)

Open items:

- ❖ Brian is looking for better resources on driving buck converter from power line waveforms
- ❖ Could we make frequency higher on input, before trying to extract a working waveform? (higher frequency means smaller components)

Action items for this week:

- ❖ Brian will be giving Dr. Schafer order form for some parts this week
- ❖ James and Joe will be setting up our own router, getting Wifi to talk
- ❖ Meet on Wednesday at 2 to discuss actionable items
 - Also start putting together formal list of criteria to look for in final microcontroller (EEPROM, SPI Interface, PSMC, etc.)