# **Sensor Platform**

# PSU Capstone Project

# WPR

Last Week: 2/28 – 3/6

Next Week: 3/7 – 3/13

# Colten Nye

## Last week:

* Met with Golriz to finalize schematic/board layout changes for meeting with Professor Greenberg and for team meeting with Dr. Zurk.
* Met with Dr. Zurk and team to review progress, (documentation is still an issue).
* Consulted sponsors for further detail on VOC sensor, KEIL license, requirements clarification.
* Successfully implemented ADC sensor read on hardware.
* Successfully implemented I2C sensor read on hardware.
* Successfully implemented RTC alarm code on hardware to trigger sensor readings on a schedule.
* Demonstrated hardware with working ADC, I2C and LED output
* Began Accelerometer library and initialization code
* Reviewed options for USB comm. for GUI programming.
* Met with professor Greenberg for feedback on schematic, board layout, GUI programming impementation ideas and communication protocols.
* Began SDIO and USB implementations for hardware.
* Completed and returned Team Evaluation form #1.

## Next week:

* Meet with team and Dr. Zurk (Tuesday) to review progress, clarify responsibilities and receive feedback on overall project.
* Complete Accelerometer library/implementation code.
* Integrate SDIO and USB code to existing project.
* Begin optimizations for power and efficiency, (clocking, peripheral shutdown, DMA, etc).
* Send board off to OSHPark
* Distribute debugging/testing regime for hardware.
* Complete testing plan for system integration.
* Work with team to develop hardware testing plan for fabricated board.
* Order parts to “stuff” board.

## Issues:

* SDIO not implemented on hardware.
* USB communication not defined for hardware/software integration via GUI.
* GUI not implemented.
* Team communication.
* Equal workload distribution.
* Sharing of responsibilities.
* Willingness to research and contribute from one teammate.