Weekly Status Reports

Michael Walton

10/20/13

Familiarized myself with the pins on the ATMega32U4 to being planning the layout and necessary initialization stuff in the software. After reviewing several sensor ICs for the project it was determined that we will go with an accelerometer/magnetometer IC for our compass.

Reviewed the TWI registers for the 32U4, and looked in to how to program the device; it seems as though for JTAG debugging we will have to find or purchase a special programmer that has the proprietary debug commands in it from Atmel.

10/27/13

I have taken the tasks of the sensor interface and avr initialization development, and Ben has taken responsibility for the display. This week was used to spend time reviewing the alternate functions on the GPIO pins on the 32U4 .

11/03/13

I have gotten the code available for the 32U4 from the Atmel website working with avr-gcc, so I can finally begin development of the software. Cody and I developed the schematic of the mainboard and verified all parts of the circuit follow either the datasheet recommendations, or the supplied application hints from the manufacturer.