10/11/15 – 10/17/15

**Accomplished**: Set up the Github page and downloaded desktop GUI for Github. We also narrowed down the design specifications.

10/18/15 – 10/24/15

**Accomplished**: Met with the team to test Arduino code and the ultrasonic sensors to make sure it was sufficient for the project. We found that the ultrasonic sensor is accurate upwards of 2.5m.

10/25/15 – 10/31/15

**Accomplished**: Worked on learning how to use the EagleCAD to do the schemaitcs. Worked with Shadman on completing the schematics for the board design.

11/1/2015 – 11/7/2015

**Accomplished:** Started working on the programming microcontroller. We were having trouble getting the Arduino to program the Atemga 328p on the bread board. One of the students told us to use the AVR dragon to program it and we were able to program the microcontroller.

11/8/2015 – 11/14/2015

**Accomplished:** Nate and I completed set of code which lighted LED on and off to ensure that microcontroller was working. We set up a sensor for the circuit with a clock pulse which we generated through a code, periodi 100us pulse.

11/15/2015 – 11/21/2015

**Accomplished:** I found a code online that was used for operating the sensor with the idea of the rising edge pulse and falling edge. However it was beyond our scope of understanding for coding the sensor. We changed the various value within the code that we knew would not result in significant difference in the detection of objects.

11/22/2015 – 11/28/2015

**Accomplished:** This week we met up as a team to debug and construct our PCB we got from OSH Park. However there were some error on the PCB, it was not matching with the EagleCAD. It was a minor error so we decided it was okay and we ordered correct size parts. However, when we plugged the assembled board to the AVR dragon to program it, it gave us an error saying not enough voltage, so we walked through the circuit and decided to remove the reset LED to give more voltage to the Atmega328p. However, that still did not work. Later in the evening, Shadman told us that it was AVR dragon that was causing the problem and everything was working fine. I soldered the wires that will run through the cane and the board.

11/29/2015 – 12/5/2015

**Accomplished:** New parts arrived and populated rest of the board. We got together and put together the cane. Nate and I worked on routing the wires through the cane. We had to make some adjustments such as cutting out a hole on the PVC pipe cane to route the wires. Shadman used laser cutter to print out the acrylic case for the board.

12/6/15-12/10/15

**Accomplished:** We spent this week working on the debugging and optimizing the code. We also worked on the power point presentation and revisions on the HW.