Hardware: Andrew Gates

- Completed – From my To Do from last week I finished setting up and testing our demo/prototype for 2/3 pin digital/analog sensors. This also includes all 16 combinations of bias resistors.
- To Do – Now that our prototype is tested and working, we can move forward with the PCB. Reagan will order it soon so that we have time to test and reorder it if necessary. I will now start to work on adding in the GPIO extender into my prototype to interface our 8 channel relay board into our prototype.
- Noted Problems – No major problems this week. One thing we noted with our prototype is that some bias resistors won't work with certain sensors, this is expected due to the size of some of the resistors. But we'll need to find a way to denote this to the user so they know which resistors to use.

Hardware: Andrew Klonitsko

- Completed - Buttons in the interface create new activity when pressed, App is connected to database
- Incomplete - App doesn't pull anything from the database at it does is makes a connection
- To Do - pull infomation for the database and work with Regan writing mysql code.
- Noted Problems - figuring out what to do with all of the data from the database as well as how often everything needs to be updated. display mutiple graphs all updating at the same time.

GUI/SG sensor: Reagan Stovall

- Completed -
    - update First 5 GUI Pages with new design. When building the timing Page, I learned a fair bit and made a template so that all the pages will be uniform
    - Finish PCB Design and send it off to be fabricated.
- Incomplete -
    - Failed to get the AFE working with the arduino, not much documentation either. I'll continue trying this next week
- Next Week---
    - Connect the GUI with Andrew's Backend program and run a basic program.
    - build a display page in the GUI that can read new values and display them. Keep it simple for now.
    - Keep trying to get the ultra sonic sensor to connect and read values
    - Build a table in SQL and connect to it with the Pi
- Mitigation Plan – N/A (On track so far)
- Spec Development – First draft completed, will update with changes as they are made.
- Test Plan – A portion of this was completed along with our spec development. A general outline is made and we will start updating it soon.

Automation Station

week starts on Saturday because we're evil

week: 15

Plan Duration | Actual Start | % Complete

ACTIVITY	PLANNED START WEEK	PLAN DURATION	ACTUAL START	ACTUAL DURATION	PERCENT COMPLETE
debug Sensor and add Calibration feature	11	3	12	8	80%
connect the Phone App to a MySQL server using the insstech server	13	2	13	2	100%
Build Basic GUI in python for Control Box	12	3	14	3	100%
Connect pi to phone app via wifi, send and receive data set	14	2	14	2	100%
Expand Pi GUI to include multiple sensor selections and power control selections.	15	1	14	1	100%
Expand Phone App Gui for retreiving current sensor and power states	15	2	16	2	30%
Design and build basic relay control	15	1	15	1	100%
Design and order PCB Protoype 1	15	1	15	2	50%
Test new waterproof Ultra Sonic Sensors with associated control board to see if applicable	16	1	16	2	10%
Expand Pi GUI to include time management	16	2	15	2	70%
Build and test 16 chanel mux with 12 bit ADC chip, propogation delay and any other observations	16	1	16	1	50%
Order and test GPIO expander	17	1	15	2	100%
Build Control Box ProtoType [16 sensors, 8 motor					0%