Benjamin Jusufovic

Ben Cao

Curtis Mayberry

Thinh Luong

## Past Goals (The week of Jan 28st)

## Assist schematic and PCB design for controller box/panel

## Enable USB logging on MCU

1. Complete the PCB component placement and routing
2. Prepare the MCU code for the wireless transceiver and begin to test the code
3. Finish the main program for the steam valve control panel that includes basic LCD functionality, temperature sensor, and motor controller
4. Start testing Ethernet transceiver's basic functionalities
5. Develop Web interface: develop the code for communications between the microcontroller and the web interface and the code to record steam valve controller data from the web interface

## Issues

## Difficulty with compiling USB example, working to resolving the problem

1. The PCB design will not fit on a one size fits all board. Therefore, the design will have to be broken into two components, the user interface as well as the controller unit
2. Needed to make a major revision to the data structure used to store the temperature sensor readings and the set pt data along with revising the method to buffer incoming messages. Finally in order to test the incoming messages to make sure the data is properly received, the wireless transceiver code must be integrated into the main function so we can see if the data is collected properly
3. Still waiting for the Ethernet testing kit to test Ethernet code

## Results and Progress

## Completed real timer counter for MCU

1. The software was not functioning as expected for the PCB. The PCB design cannot fit onto one board. We need to break the design into two components, the user interface and the controller unit design in order to complete the project
2. The code revisions have been made with a much cleaner storage method utilizing structures. The testing has been started but further work is needed to finish the testing for the wireless transceiver
3. Finished the main code integration for LCD, temperature sensor, and motor controller. We will test the main code once all functionalities are integrated
4. Established localhost for Apache server to work with php and mySQL

## Future Goals and Plans

1. Due to the non functioning layout tools, we have not been able to complete our design by this week. However, after fixing the issues, we noticed that the design will not fit a one size fits all board. Therefore, we are in the process of dividing the design into two units, the controller unit as well as the user interface. We hope to have parts ordered no later than Monday and have the PCB component placement and routing done no later than Sunday.
2. Finish testing of the transceiver
3. Finish basic web interface GUI using PHP and mySQL running on Apache
4. Start testing Ethernet code