Bi-Weekly Status Report 4

Dates: 10/7/2018 - 10/20/2018
Group Number: sddec18-02
Project Title: Steam Heat Controller Retrofit
Client/Advisor: Lee Harker

Team Members - Role
Sarah Coffey - Reporting Lead
Ken Wendt - Webmaster
Liz Wickham-Kolstad - Design Lead
Jevay Aggarwal - Technical Lead
Joe Filbert - Client Lead
Thomas Devens - Planning Lead

Summary

Our team has had some slow progress through the last two weeks as we have run into various technical decisions and the resultant issues. The web team has been attempting to integrate the Shibboleth authentication into the project; due to the scarcity of documentation and our lack of experience in this arena, we have run into many issues deploying this. The hardware team has been working on a PCB to hold the LCD and push buttons for the RCU. The MCU boards have been received and are pending soldering in the reflow oven. Enclosure design is underway for the MCU, next RCU after finalizing PCB design. The software side for RCU is done, we might need to add some finishing touches to it though. On the MCU we need to start implementing the AES encryption to securely transfer the data b/w RCU and MCU.

Pending Issues

The web team is waiting to hear back from the IT department at ISU on getting help with Shibboleth. Depending on the solution we figure out, we might have to move away from using Spring. Hardware need to move smoothly during the RCU PCB design in order to catch up and have enclosures produced on time.

On the MCU we still need to implement the encryption. It receives encrypted data from the RCU but is not printing it nicely on terminal, maybe a printing issue but needs to be taken care of.

Going Forward

Our team is continuing to implement the security measures identified in the PIRM, as well as furthering development to hit our goals, and integrating the various entities. Within the next 2 weeks, we are angling to get the PCB for the RCU completed and sent off, determine the authentication on the WCU, and finish the encryption between the RCU and MCU.

Individual Contributions

Name	Contribution	Hours Worked	Total Hours
Sarah	Researched Spring and Shibboleth integration.	4	42

Ken	Started designing the enclosure for the RCU and modelling the PCB for the MCU.	6	35
Liz	Connected pi to Database. Can now check for updates on the database and adjust motor accordingly.	5	39
Jevay	Finished up the AES encryption on the RCU. Can successfully encrypt and decrypt data sent to the MCU.	7	39
Joe	Preparing to surface mount components to received PCB's, designing PCB for RCU. Starting to design enclosure for MCU.	7.0	30
Thomas	Modified the CSS for the website so it has a better looking/ easier to use design. Also continued work on integrating Shibboleth into the project.	10	36.5

Meeting with Client/Advisor
Not applicable this week.