

Weekly Status Report 3

Dates: 2/4/2018 - 2/10/2018

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 project progressed successfully according to schedule. The software side met to determine the communication scheme for the Raspberry Pis; since we are using wireless, we determined SSH would be the best mode, but the Pis can change IP address which is a problem. To combat this, we have decided to reserve a single Pi to act as a server. Through a discussion with Steve in ETG, we have assigned a name and fixed address to this Pi so that the other Pis can connect to it and get data that way. The hardware side of our project continued to look into motors and motor mounts; they are working on creating a 3D model of a mount using an online CAD program. They also determined the torque needed to turn the valve in the machine shop.

Our team has also looked through the previous teams materials and evaluated their approach. We have identified sources of error and design approaches that we can avoid. We have also salvaged some of their old supplies that we might be able to use.

Pending Issues

None

Going Forward

Sarah, Liz, Jevay, and Thomas: Configure the Raspberry Pi server network. Program a Pi with the temperature sensor and begin collecting data.

Joe and Ken: Finish motor mount design.

Individual Contributions

Name	Contribution	Hours Worked
Sarah	Worked to find a solution to the changing IP problem. Came up with file system solution for the server Pi and slave Pis.	6
Ken	Evaluated previous group's motors and mount. Working with Joe on mount design in CAD (OnShape).	3.5
Liz	Experimented with I2C on the Pi for the temp. sensor. Worked with software team on changing IP problem and researched SSH	8

