**TEAM MEMBERS**

Ryan Zarou

Elliott Ieremia

Samuel Boahen

**PROJECT DESCRIPTION**

Project 1

Scalable and robust infrastructure to create a building's heat and humidity profile Mechanics of this project is basically simple, and we have already done it– use sensors to collect temp/humidity data, save it to a local database on the Pi. What you need to do is create a robust, attention-free, easily deployable system that integrates data from many sources and allows a nontechnical user to visualize what is going on in a building at any specified time. You must design a scheme to save data from different Pi’s to a remote server that authorized persons can log into. Here is a use case scenario for the project:

1. You give the people in a building a box and ask them to plug the box in to an outlet. You are going to assume that there is a WiFi network connection that the box can access. You could get the SSID/password of the network from the user in advance and set up your box accordingly.

2. The box will start collecting temperature and humidity data at regular intervals, store locally, and also upload to a remote site.

3. A user can log into the remote admin site, and should be able to access the temperature/humidity profile of each deployed box.

4. The user interface of the admin site must be such that it can show the measured parameters in a specified time frame that the user can pick.

5. It must be possible to see the individual data profiles of each box (in a graph), as well as a cumulative view (as stacked curves, for example)

**PROGRESS MADE SO FAR**

1. Auto temp and humidity data working
2. Storing data locally
3. Uploading data profile to remote site

**WORK THAT NEEDS TO BE DONE IN THE NEXT 3 WEEKS**

1. Create remote site for uploading

Site needs

* Login system
* Ability to check data from each box
* UI that can display data from a specified time frame
* Show each box's data in a graph alone and as cumulative view

**TEAM MEMBER ROLES, RESPONSIBILITIES, AND CONTRIBUTIONS**

4. Contribution of each partner. List what each person did, and what each person’s future role for the project.

**Ryan**

**Major: Computer Science**

**Skills/Specialties: Python, Java**

**Resources/Tools/Supplies Available: Raspberry Pi**

**Willing to Work On: Creating database / collecting data**

**Elliott**

**Major: Computer Science**

**Skills/Specialties : Java, Jury-rigging code with duct-tape and**

**hope to provide a base for someone who knows what they’re doing**

**Resources/Tools/Supplies Available: Raspberry Pi**

**Willing to Work On: Anything, Assisting in all areas when possible**

**Sam**

**Major: Computer Engineering**

**Skills/Specialties: Digital Logic,**

**Programming (C/C++ ; Java ; Verilog),**

**Some 3D Printing Experience (Rhino), Project**

**Management, Powerpoint/Interactive   
 Animations, Design/Aesthetics, Public   
 Speaking/Presenting**

**Resources/Tools/Supplies Available: Engineering Toolbox, Raspberry Pi**

**Willing to Work On: Presentations/Slides, JavaScript/HTML**