sdmay18-15: Building wireless lab space on a college campus
Bi-Weekly Report 3
February 9th - February 14th

Team Members
Alec Sauerbrei — *Curriculum Lead*
Colin Ward — *Communications Manager*
Hope Scheffert — *Documentation Manager*
Omar Taylor — *Software Design Lead*
Tyler Much — *Physical Design Lead*
Dalton Handel — *Networking Lead*

Summary of Progress this Report

During this reporting period, the team has started feeling more pressure as February comes to a close. This is good, because with it the team has started taking care of a lot of small pieces of work that have been in the way. The SDR, while functional in safe mode does not function normally. A meeting is being arranged with Paul Pfister to learn more. Scripts for the raspberry pis that compliment respective curriculum objectives have been completed. The faraday cage is being tested for signal blockage along with the router that is going to be used inside. The team has seen near complete blockage of the router inside the cage with the three layers of foil already on, however the team expects to add more to ensure that the signal blocking reaches near 100% with all components inside

Pending Issues

SDR connectivity again is a pending issue. The team thinks they are near a solution, as it is functional in safe mode. There are only a few issues to sort through. The team also recognizes the lack of having a server as being a pending issue. The goal is to finish everything we can outside of that scope first so the team is ready for the server when it comes.

Plans for Upcoming Reporting Period

A hard deadline has been set to have the faraday cage completed before spring break. This means all components mounted inside with the proper testing done. This will leave plenty of room for curriculum to be finished before the end of the semester.

Individual Contributions

Team Member	Contribution	Week 1 Hours	Week 2 Hours	Total Hours
Alec Sauerbrei	Raspberry Pi setup and working with Hope on getting scripts to interact with the email server and getting the apache and email server to run simultaneously. Looking into hackazon setup on R2DPi.	3.5	6.5	18

Colin Ward	The past two weeks have been focused on getting the cage done. I purchased aluminium foil along with Tyler to line the inside of the bin. After two sheets of foil, we weren't seeing much signal blockage, so I decided to put a layer of crinkled foil in to help with the signal deflection. Alec and I also tested using a small electric current in the foil to disrupt signal. While there were small improvements, this is most likely a route that we won't pursue.	4	4	18
Hope Scheffert	Research on POODLE Attack. Got old 431 labs from Alec and started following the POODLE attack lab to get an idea of what we are looking for. Alec and I worked on pi's more and made a script that successfully sends emails on our pi's mail server. Did some poking around researching Hackazon because we may be using that for some labs.	4	5	18
Omar Taylor	Troubleshooting SDR connection issues to host device. We were successful in that after booting the device to safe mode we were able to establish a connection and begin interacting with the SDR, however as soon as we left safe mode the connection to the SDR was lost.	4	4	23
Tyler Much	Purchased more lining for the faraday box. Conducted testing of signal blockage, and added more layers. Then did more testing. Unboxed more components and removed the antennae from the wireless router. Tested signal blockage with the new router.	4	4	17
Dalton Handel	SDR firmware updating. Testing interaction from host to SDR. Can communicate in safe mode, but when resetting (and verifying that new firmware is loaded and working) lose communication as expected, but does not come back after waiting. Arranging meeting with Paul Pfister. Also contacting National Instruments.	4	4	19