

sdmay18-15: Building wireless lab space on a college campus

Week 7 Report

October 26 - November 2

Team MembersAlec Sauerbrei — *Curriculum Lead*Colin Ward — *Communications Manager*Hope Scheffert — *Git/Documentation Manager*Omar Taylor — *Software Design Lead*Tyler Much — *Physical Design Lead*Dalton Handel — *Network Design Lead***Summary of Progress this Report**

This reporting period was spent more on administrative and research based tasks than the technical side of things. With persisting problems using the SDR, the team is trying to discover what can be done to get the OpenBTS software functioning. The team has also outlined a list of lab curriculum topics, along with each topic's learning objective. Each topic is broad enough to be broken down into a set of labs that a class could use to reach those objectives.

Pending Issues

The SDR is still not functioning the way we would like it. Extra time is being allocated to this problem since it needs to be solved as soon as possible.

Plans for Upcoming Reporting Period

In the next reporting period, the team will have made a second prototype based on Mani Mina's advice. The second iteration of the parts list will also be confirmed by the client-advisors and the team will be able to move forward with purchasing the more expensive parts of the project such as the Android phones and wireless equipment.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Alec Sauerbrei	Working on the project plan and discussing the parts list with Julie and the team	2	26.25
Colin Ward	Came up with a definitive list of curriculum topics, along with their corresponding learning objectives. I also went through the parts list and found new sources based on the feedback we got that the electronics should come from Allied Electronics or CDW.	3	32
Hope Scheffert	Updated the project plan and researching existing automation Android apps versus	3	29

	using Android studio to do phone calls/sms messages. Helped brainstorm (and understand) basic lab concepts.		
Omar Taylor	Small amount of work in the form of reading went into further verification of if the OpenBTS software will work with the SDR.	1.5	19.5
Tyler Much	<p>This week I was working to improve the prototype. After adding the wire mesh we had seen a little bit better blocking performance, but it needs to get better. I am incorporating the feedback from Mani Mina into the next iteration of the design. I went to Walmart and purchased heavy duty double wide aluminum foil. I plan to line the inside of the box with the aluminum foil, and then run all of our tests again. If I find it effective, I will start over with a new prototype with just the aluminum foil to see how it does on its own. I also spent some time looking into a copper (or PVC) piping to build a final version of the cage, and have some design concepts drawn up.</p>	3	27
Dalton Handel	Discussion with Julie. Tinkered with VirtualBox for a Ubuntu VM	2	27.5