

Group number: 37

Project title: High Clarity Speaker System

Client &/Advisor: Dr. Louis Banitt, M.D. / Professor Tuttle.

Team Members/Role: Quinn Rayner, Nicholas Bramanti, Arifi Salim, Andrew McNeil

○ **Weekly Summary (Short summary about what you did this week)**

This week we focused on the aspects of the project that were important for finishing the design document. We want to make sure that as we move forward we are continually presenting work that we understand, and are capable of realizing. We are doing more research into GNU radio to first figure out all the software we will need to make it work, and also how it will communicate with the hardware components that we create. Arifi and Andrew are researching the hardware we will need to make the system work. Right now we are focusing on the type of antenna we will need, and figuring out how to build a receiver(speaker).

Nick and Quinn have begun to research all the software we will need. We understand the main concept of GNU radio, but we have a lot more reading to do before we will be able to actually process signals and create any sort of output. We need to work on some of the tutorials we have found.

The next step after figuring out the software and hardware individually is being able to pair them together. This is why it's important that we all spend a good amount of time researching GNU radio. We're at the stage where we are all ready and excited to start testing some simple concepts of our design, but we don't want to get ahead of ourselves and put a lot of time into something that ends up not being compatible with our design. Once we are able to understand our software better, we should know its ability to communicate with physical hardware, and be able to set in stone our plan moving forward.

○ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Quinn	Researching GNU radio.	6	34
Nick	Researching GNU radio	6	34
Arifi	Researching speaker designs	6	34
Andrew	Researching microphone and speaker.	6	34

○ **Comments and extended discussion**

Last week we didn't have a great understanding of GNU radio, and we were much more confident in our design. This week as we've started to figure out how to actually implement our design we've realized we have a lot more to learn. We think it's important that we actually start testing the software to see what we can do with it, and to make sure that any physical hardware we decide to create or utilize will work with it. We're still confident in our current design, but we haven't found a whole lot of information on the software other than what is available on gnuradio.org. Most of what we have found here has been much in the same style we see in lab work, and isn't as helpful for beginners.

- **Plan for coming week (please describe as what, who, when)**
 - Quinn: GNU radio tutorials and readings (software)
 - Nick: GNU radio tutorials and readings (software)
 - Arifi: GNU radio tutorials and readings (physical components)
 - Andrew: GNU radio tutorials and readings (physical components)