

Customer Interview

Q: What is the main goal you want us to accomplish in this project?

A: I'd like you to create a low cost EEG where the total cost of the finished product ends up being less than \$100. If you exceed this budget this year, that is okay since there is nothing for you to work off yet.

Q: How many channels would you like for the EEG?

A: I want a 14-18 channel similar to the \$800 model shown to us earlier

Q: What sort of user interface do you want?

A: Most of these details will depend on cost. If a bluetooth model is cheap enough, that would be great. I just want it to be cheap and easy to set up for high schoolers. I believe all interfaces should be compatible with a computer, using MATLAB or Python for some sort of signal processing.

Q: What type of signals will we be working with?

A: Signals are in mixed frequency and they will need to be separated into frequency bands. We can see 0.4 to 30Hz range signals in the brain. You could possibly use machine learning algorithms or discrete fourier transforms to separate the frequency bands.

Q: What type of instructions do you want for the high school students?

A: Since we go to high schools to model the EEG, we would want you to go to local high schools to present this project to them. You should create a step by step building video, going only in how these students to make this from scratch, not how you went through your design process. This doesn't include how you did the software side. That should be available on GitHub.

Q: What kind of timeline do you want to see from us?

A: I would like the hardware setup designed by the end of this semester, including the 3D printing of the band and collecting raw signal data. In the Spring I would like to see the software and filtering done and finally the how to video. It is important to me that you work as a team, not necessarily to complete anything. Just work together and do your best.