

## Meeting Minutes 3/2/21

Shared results from last testing meeting. Pat mentioned that for calibration he was using a 4-3-4 method of breathing.

Kate had mentioned that her dad brought up a good point about attempting to isolate the signals. To do this he told her that we should perhaps perform some blindfold or deafened tests with possibly feeling a object or something simple.

Dr. Kumar mentioned that this would be a good test, but that we might need to relocate some of the electrodes in order to get the responses from the motor cortex (the top of the head approximately).

We discussed it and Jake mentioned that with making “pockets” for the electrodes now with the felt coverings, that it should be a little simpler to make mobile electrode locations.

Kate mentioned that most of the parts are here. The surface mount parts fit well, and so do the elongated male pins. We will need to double check for the fit of the filters once they arrive.

We then discussed the flexible design vs. accessibility to students. Pat mentioned that the students won't be very experienced with soldering. However, with our current stacked circuit design, the size should be fine. The main issue will come with the surface mount equipment, which he mentioned will just take a little practice to get right before attempting. Kate mentioned that the students could take the circuit in stages in order to get practice with soldering before attempting the hardest stuff.

Pat also mentioned that the students could be tasked with compacting the design themselves, as a thought experiment perhaps, or actually having them attempt it.

Max mentioned that we will need trained sets from an 8 channel data set in order to begin working on the machine learning. This we will have to look around for as many of the trained data sets have more or less electrodes. Max also mentioned that we could just trim some of the trained data sets down to 8 channels.

The final thing that we went over was the need to calibrate the green electrode as it seemed to cover a good section of the screen.