

## Meeting Minutes for 9/22/2020

### Project Timeline

- Needs to be done by the end of the year
- Preferred to have a “functional” prototype by the end of the semester so we can do testing next semester

Voltage Range of previous device: unknown, but likely 5V or less due to nature of Arduinos

### Shop orientation

- Talk to Dr. Swenson for when the reschedule may be happening
- 3D printing is also available in the library if needed

### Brainstorm Ideas

- Wig Cap Design
  - o Optimal, looks the most promising, will need more research into
- Hydrogel with electronics
  - o Also happy to do
  - o Can talk with people in Material Science to determine viability
- Black Mirror Design
  - o Less favored as it is relatively similar to wig cap design
- Box design for circuit cards
  - o Will work great as a back up plan, assuming hydrogels don't work
- Python now seems to be a viable way to make the device, as it has increased capability to create windows applications, as well as its machine learning capabilities

### Exit Plan

- Continue research into above ideas
- Book will be/has been shared through one drive folder for reading on EEGs
- Pick up previous years device from Dr. Gautam's office tomorrow (9/23/2020) in McClure hall on the 4<sup>th</sup> floor

### Ideas to consider for meeting on 9/24/2020

- Can we show demonstratability of device?
- Do some thoughts have specific waveforms?
- How will we remove artefacts from the signals? (undesired waveforms)
- Will need development of deep learning from software