

Week 12 Report

Group Members: David Jones, Brennan Kandalauft, Luis Ruiz

Client: Keith Hengen

Project Status: This week we tried coating the carbon fibers in 5% PVA solution. We have found that the fibers are so thin that the PVA does not have the surface tension to form a droplet around them. I have a training in the cleanroom next week with Rahul Gupta to learn how to use the Parylene Deposition Chamber so that we can parylene coat some carbon fibers. Our hope is that this coating, which is standard for the electrodes for electrical insulation and even provides 3-4 μm of added diameter, will improve the success of the PVA coating.

We printed out of 10x scaled up models of the PCB and a hypothetical grid for controlling the electrodes. These will help us brainstorm a jig to control the fibers as necessary before outsourcing it for printing.