Dhruv Sandesara

Sean Tremblay

Testing Description

Our design requires that a voltage signal be acquired from the changing electric potential of the human skin. This means that many of our tests had to be conducted using live tests, where connecting to various parts of the body and grounding in different spots: like the ankle or the chest, gave different results. Ultimately, we concluded through monitoring the response on our LCD, that our best input locations were on the thumbs.

Similarly, to test the preliminary success of our project, we needed to verify that our voltages were in an appropriate range. Therefore, we used the test pins on our PCB and Voltmeter tests to verify that our Op-Amps were outputting a proper and stable voltage. This meant attaching the voltmeter probes either to empty pin holes on our breadboard or to wires on our breadboard. This allowed us to gauge how effectively our circuitry was built, and if we had incorrectly placed any parts or wires.

Finally, we used our Keil Debugger as a means to check whether our GPIO pins were effectively being written to and/or receiving data correctly. We often ran into cases where simple initializations would freeze our entire system. Therefore, having this tool at our disposal helped to reduce the time spent debugging these issues.