In Fall 2021 the Brandeis MRSEC organized and ran a hands-on, small-group Electronic Fabrication Workshop that developed trainees’ skills such as instrumentation development with Arduinos and Raspberry Pis.

Over the course of 5 weeks, this 15-hour workshop tasked participants with developing a temperature regulation system that could cool a sample to a pre-set temperature. By utilizing low-cost, fully customizable materials commonly found in the DIY community, such as Arduinos and 3D printers, workshop participants developed fabrication skills.

The small-group nature of this workshop allowed participants to work together to develop their projects outside of workshop hours. Furthermore, since each workshop meeting was designed to be “bite-sized” with time between sessions to digest material, trainees were able to independently investigate how to further customize their projects to support their individual MRSEC research goals.