

# Developing Instrumentation Skills of Graduate Students

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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.



Brandeis MRSEC trainees participated in a small-group, hands-on, 15-hour training series to develop their electronic fabrication skills.

