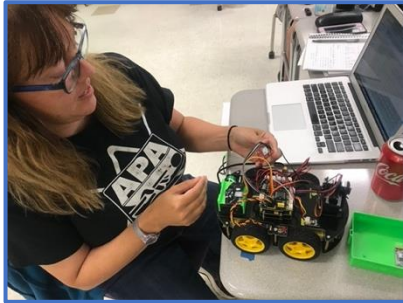




**Masters of Mobility meets Modeling Instruction to integrate a
Connected and Automated Vehicle Challenge into High School Physical Science:
Modeling Mobility**



Modeling in Michigan and the *MiSTEM Network* are partnering with the *Square One Education Network* to provide experienced *Modeling in Physics* or Physical Science teachers with an engaging Problem Based Learning module: **Masters of Mobility**. This established Square One project will be woven into the Modeling in High School Physical Science framework to deploy a wave model utilizing Arduino, Bluetooth, and sensor technology in an authentic classroom challenge with a connected and autonomous vehicle theme.

Date and Time: July 13-22, 2022 – 8:00am-3:30pm (Wed-Fri and Mon-Fri)
Location: Troy High School, Troy MI

What's included?

- A detailed instructional module using Modeling pedagogy will be provided. This will be an appendix to the High School Modeling in Physical Science Framework
- The module will equip teachers with technical explanations, classroom activities and instructions on how to conduct a classroom challenge as well as an invitation to participate in a Square One challenge competition
- Non-consumable kit materials for student use include Arduino-based robotic vehicle platforms and associated sensors
- These durable components are versatile learning tools
- An understanding of the societal issues implied by the “mobility” revolution, the crossroads of automotive and information technology!
- Facilitated instruction in Arduino IDE and constructing a robotic vehicle system
- A real-world deployment of wave phenomena especially as it relates to digital communication
- New connections to STEM professionals who are contributing to the mobility revolution in Michigan, plus a richer understanding of these future careers

Other benefits:

Stipends for participation (\$125 per day) plus 45 SCECHs and/or 3 Grad Credits (TBD)

Application Process and Timeline:

Application review will begin by March 28, 2022. First announcements of acceptance will begin by April 18, 2022. Applications will be considered until roster is full, or July 1, 2022.

To apply, complete this survey: <https://tinyurl.com/mrxy7nen>



Funded by the Bosch Community Fund, MiSTEM Regions and the Square One Education Network

About Bosch Community Fund: The Bosch Community Fund, the corporate foundation for Bosch in North America, provides community engagement and philanthropic support on behalf of the corporation. The foundation focuses on the enrichment of STEM education and advancing environmental sustainability initiatives.

About the MiSTEM Network: The MiSTEM Network connects education, business, and community partners across the state and is working to transform the way Michigan does STEM. MiSTEM Network supports opportunities for every student to experience problem-based learning that allows them to use STEM skills to address authentic challenges in their communities.

About Modeling Instruction in Michigan: The Modeling Instruction in Michigan program provides professional development to Michigan secondary science teachers in Modeling Instruction. It is a comprehensive statewide program conceived and organized by lead members of MiSTEM Network, Michigan Math-Science Network and partnered with Eastern Michigan University, Detroit Metro Area Physics Teachers, and American Modeling Teachers Association.

About Square One Education Network: The Square One Education Network is a STEM focused educational non-profit organization serving K-12 teachers and students. We offer unique professional development workshops for teachers and innovative vehicle engineering challenges for students, all focused on building skills and interests in pursuit of technical careers in the mobility industry.