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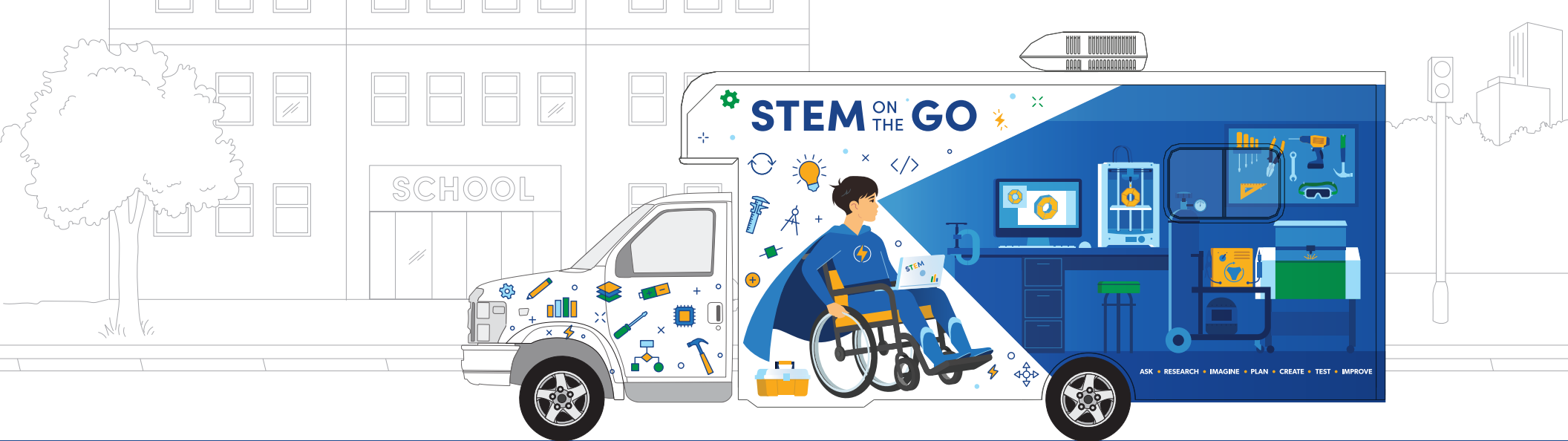
STEM ON THE GO

Mobile Digital Fabrication/ Machining Van

In partnership with RTI and the Defense STEM Education Consortium, TIES operates the STEM-on-the-GO Mobile Digital Fabrication/Machining Van.

The van is available for the 2021-2022 school year to provide hands-on STEM experiences to students. During the van's visit to a school, the students will be engaged in solving real-world STEM challenges using the Engineering Design Process while learning how to use design software and the digital fabrication and machining equipment in the van. Pre-designed STEM experiences are grade-level appropriate, customized for students in grades K-12, and facilitated by the STEM-on-the-Go Mobile Fabrication Lab Manager who is a Marine Corps veteran with a B.A. in Middle School Education from the University of North Carolina.

Costs associated with bringing these programs to a school district or to an informal learning environment will depend on the length of the engagement, choice of project/activities and travel expenses incurred. For more information, please contact Toby Bothel, TIES Director of Engineering, Design and Digital Fabrication at tobybothel@tiesteach.org or by phone at 301-448-2803.



Fact Sheet

The STEM-on-the-GO Mobile Digital Fabrication and Machining Van is a 26ft long, 16ft box 2008 E450 Ford Gasoline vehicle. The vehicle is equipped with an awning so that some machining/fabricating can take place outside the vehicle. Other features of the vehicle include:

- Wheelchair lift (automatic, ADA approved, w/door);
- Roof mounted air conditioner;
- Sink, hot water heater,
- Air-cooled gasoline generator.

Equipment on Board the STEM-on-the-GO Van

Digital Fabrication Equipment

- Trotec Speedy 100 Laser Cutter
- Ultimaker 2+ Extended 3-D Printer
- Desktop Shopbot CNC Router
- Handibot CNC Router
- Ultimaker S3 Dual Extrusion 3D Printer

Machining Equipment

- WEN 10" Band Saw Model # 3962
- Miller MIG Welder (Milleromatic 141) Model # 907612
- Vulcan Welding Cart
- Rigid Jig Saw Model #R8832B
- Grizzly Metal-Cutting Bandsaw Model # G0622
- Grizzly G0704 Mill/Drill with stand Model # G0704
- Grizzly Mini Metal Lathe Model G8688
- Grizzly Wood Lathe Model G0624Z
- DeWalt Benchtop Grinder Model DW758