

# STEM INNOVATORS-IN-TRAINING EXPERIENCE

St. Louis, MO • September 14



## 2,000 Free Computer Science and Engineering Kits Provided to 2016 Tour Participants

### STEM Innovators-in-Training Experience St. Louis

**Date:** Wednesday, September 14, 2016

**Time:** 9 AM - 1 PM

**Host:** Chaifetz Arena, St. Louis University

1 South Compton Avenue, St. Louis, MO 63103

Join Ten80's team of STEM professionals and regional leaders in a one-day version of the Innovators-in-Training Challenge. Students will attend workshops and working sessions that focus on one or more of the four critical aspects of innovation: the engineering process, enterprise process, content & skills and leadership.

- **Audience:** High schools and organizations that serve high school students
- **Minimum Participation:** 5 students due to the team-oriented challenge
- **Snack & Lunch:** Provided to participants registered 2 weeks prior to the event
- **T-shirts:** Provided to all students
- **Bussing stipends:** Available to schools that bring 40 or more students

**Innovation takes practice. Let's get started!**

Register online at [www.Ten80Education.com/?p=562](http://www.Ten80Education.com/?p=562)

### VIP Breakfast

Interested in learning more but not bringing students? Administrators, elementary and middle school educators, and informal educators are invited to an informal breakfast before the event begins. Doors are open from 8:00 AM - 9:30 AM when student registration is in full swing.

Download the full VIP Breakfast flyer from the event page at <http://www.ten80education.com/events>

RSVP to [mjsmith@ten80education.com](mailto:mjsmith@ten80education.com) to ensure there is enough coffee!

### Long-Term Learning through STEM Sponsorship

The Experience can serve as a kick-off for long-term learning. High schools that bring 40 or more students to the event will receive up to \$5,200 of STEM programming. Depending on their needs, these eligible schools can choose one of these sponsorships:

- Computer Science activities bundle,
- CompSci course that meets CSTA standards
- Robotic Rover Club kit,
- Race Engineering Club Kit
- Race Engineering or STEM Endorsement Course Kit

The opportunity for students to collaborate and compete in 2016-17 through the National STEM League is included with each of these Student STEM Challenges.

Visit <http://www.ten80education.com/stem-tour> for more information on these programs that are certified Exemplary and Scalable by STEMWorks.

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# SPONSORSHIP OPPORTUNITIES

Eligible high schools are invited to activate sponsorship which includes:

- Student STEM Challenge Course, Club or Activity Set; options described below
- Entry into the 2016-17 National STEM League where students collaborate and compete online and/or face-to-face

Every school, classroom, educator and student is unique so the following options are open to eligible schools. Choose the ONE that best meets your needs.



OR



## Club Kit or Course Kit for Credit Classes

The Student Racing Challenge can be implemented as a STEM Endorsement course, Intro to Engineering course, out-of-school club or individual modules to support your existing curriculum.

Throughout the course or club, students work in teams and essentially own their own business. They manage themselves, market their team and of course, engineer performance. The base technology is a 1:10 scale electric radio-controlled (RC) car that can be setup in over four million ways before re-engineering a single part.

Specialization pathways projects include automation (Robotic RaceCar), Aerodynamic Design using 3-D CAD, and Renewable Energy Charging.



OR



## Club Kit

Already have a background in CS? Apply your skills in the realm of robotics. The ultimate goal is to learn how to teach machines to do dangerous, dirty and dull or repetitive jobs. Student Rover Challenge teams apply lessons learned in the Student CompSci Challenge to assembling and programming a robot to navigate and manipulate a maze. Customize then enter your Rover into the National Robotics Challenge (NRC).

## Course Kit or Activity Bundle

There is more to computer science than coding. A lot of your best ideas might require a solution with both hardware and software. Ten80's Student CompSci Challenge will introduce educators and students to the tools to help make your ideas into realities. This includes learning about computational thinking, algorithms and programming. Applied to the popular Arduino microcontroller it opens the world of automation, internet of things and interacting with the physical world.

## Enterprise & Innovation Curriculum

Already have all the projects and programs you need? Enhance them with the Enterprise & Innovation Guide. It will provide you important tools for understanding the terms innovation, engineering, enterprise and evidence-based enterprise. It walks you through the process from creative mayhem to focused business decisions. Units include the engineering design process, business modeling, project management, marketing and business planning.



## HOW DO YOU DESCRIBE INNOVATION?

"If invention is a pebble tossed in the pond, innovation is the rippling effect that pebble causes. Someone has to toss the pebble. That's the inventor. Someone has to recognize the ripple will eventually become a wave. That's the entrepreneur."

*Tom Grasty, PBS Idea Lab*

## HOW DO YOU ENGAGE IN THE PROCESS OF INNOVATION?



- Engineer a solution to a problem or opportunity people care about. Engineering occurs at the intersection of science, mathematics and technology.
- Apply specific knowledge and skills to see ideas through.
- Plan your enterprise to ensure sustainability through project management, marketing, and business modeling.
- Be a leader. Leadership is required to turn ideas into action.

## Register to Reserve Space & Sponsorship

Ten80Education.com/STEM-Tour for registration link  
info@ten80education.com • (toll free) 855-836-8033 ext. 1