

# 2023 STEM Teacher National Workshop



In our sessions, you will learn ways to implement STEM concepts with emphasis on transportation-related engineering and technology applications in the classroom. The workshop provides you with ideas that will allow your students to make the connection between STEM concepts and interactive hands-on experiences.

## Session 1: Exploring with MagLevs and LEGO Education Kits

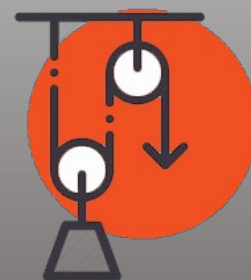
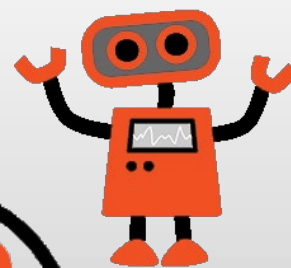
Curriculum incorporates magnetic levitation kits that involve STEM concepts such as magnetism and railway transportation. The curriculum also utilizes LEGO Education MINDSTORMS Kits that allow for interactive hands-on explanations of Newtonian Physics at an elementary level.

## Session 2: Exploring with LEGO Education SPIKE Prime Kits

LEGO SPIKE Prime Sets are the latest generation in Lego's Education line. These Educational sets are the go-to STEM learning tool for grades 6-8 and are the replacement for the now discontinued EV3 kits. The SPIKE Prime Sets will allow students to utilize high-level thinking to code robots for various operations providing a hands-on STEM learning adventure. Because these sets are fairly new, there are not many K-12 teachers trained on their use. This workshop offers teachers a unique opportunity to engage in hands-on training.

## Session 3: Exploring with Pi-Top Robotics Kits

The Pi-Top Robotics Kits are the latest technology in building a programming skill-set among High School students. This workshop will provide K-12 teachers with a unique opportunity to learn how to program using Raspberry-Pi-based robotic kits.

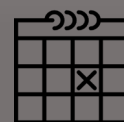


**University of Texas Rio Grande Valley (UTRGV)**

1201 W. University Dr., Edinburg, Texas 78539  
Edinburg Campus Engineering Building



To register: <https://forms.gle/bnH7d1vq5iFRVvcx5>



**Saturday May 20, 2023**

8:00AM to 5:00PM

LUNCH 12:30 - 1:30 PM



**University Transportation Center for Railway Safety (UTCRS)**

1201 W. University Dr. Edinburg, TX 78539 • Engineering Portable EPOB4 1.100

(956) 665-8878 • [railwaysafety@utrgv.edu](mailto:railwaysafety@utrgv.edu) • <http://www.utrgv.edu/railwaysafety/>