

Robotics STEM Units

WHOLE-CLASS SOLUTIONS:

No question, students are engaged with Pitsco TETRIX® PRIME robots. Now what?

Pitsco Education's Robotics STEM Units convert the excitement and engagement of robotics into learning outcomes.

Robotics STEM Units provide educators with teacher-led, team-based curriculum that delivers interconnected science, technology, engineering, and math lessons that span three or nine weeks.

- No prerequisites
- Serves 24 student pairs
- Uses common tools and materials
- Each unit contains 12 TETRIX PRIME Starter Sets.

TETRIX MAX features heavy-duty aluminum elements for construction. The same durability of the TETRIX MAX Building System is applied to the TETRIX PRIME Building System.

TETRIX PRIME features a patented Quick Rivet system, allowing for quick assembly and disassembly of robot builds.

TETRIX MAX and TETRIX PRIME are fully compatible, and the combination provides an ideal platform for creativity and unlimited design possibilities.



The principles of building a remote-controlled robot and using this robot to complete various engaging challenges are the focus of this STEM Unit. The PRIME Starter Set is used for the basic building parts for students to construct various robots and complete challenges while addressing science, technology, engineering, math, and language arts standards. The PRIME Building System enables students to quickly prototype a variety of robots, test them, and engineer them for improved performance.

Using the TETRIX PRIME Starter Set and adding sensors and an Arduino Uno controller, this unit focuses on creating a robot to complete tasks without operator input. Using an Arduino board and *ArduBlock* software along with ultrasonic and line-follower sensors, students write programs to complete various tasks that increase in complexity. Students use PRIME parts to quickly prototype and test different configurations and overcome additional obstacles. STEM standards are addressed with the engaging activities provided in this unit.

Combining the quick prototyping capabilities of the TETRIX PRIME parts with the strength and ruggedness of the MAX parts, this unit focuses on activities and builds that might be used in manufacturing plants. Using an Arduino board and *ArduBlock* software along with various sensors, students program the computer to accomplish tasks that might normally be found in a manufacturing environment. By combining parts from the two products, students build quick prototypes with the strength to accomplish automated activities that address STEM standards.

Want all three curriculum units? This package provides everything necessary to implement all three units incrementally.

