



STEM Labs

Spark creativity and innovation in the classroom with labs using hands-on educational robotics tools.

Our STEM Labs were designed by a team of classroom teachers, cognitive scientists, and pedagogy experts who work closely with the world-renowned Carnegie Mellon Robotics Academy to conduct collaborative research on educational robotics and computer science.



Each STEM Lab includes:

- Structured lessons that provide easy entry
- Engaging activities with real-world connections
- Teacher materials for a painless implementation
- Aligned standards for core skills and concepts

STEM Labs *spark* innovation in the classroom

Seek

new hands-on builds and coding opportunities

Play

test your build and observe how it functions

Apply

the core skills and concepts you learned to other problems

Rethink Know

take what you've learned and try to improve it

core concepts and how to apply them to other situations

STEM Lab
Ages 12-15 | 120 min | Intermediate

Basic Movement - Shufflebot
Learn how to code the basic movements by using the Speed Build Bot

[Preview Standards](#)

STEM Lab
Ages 12-15 | 255 min | Beginner

What is this piece for: Crown Gears and Standoffs
Practice using crown gear and standoff pieces in builds by making a working

STEM Lab
Ages 16-18 | 240 min | Beginner

Exploring Mechanical Advantage with VEX
Learners explore how mechanical advantages and gear ratios can be

STEM Lab
Ages 16-18 | 420 min | Beginner

Exploring Measurement with V5
Learners will explore the correlation between motor rotations and distance as