


# Cyber Robotics 101

## A flexible beginner’s guide to CS and robotics

Beep, boop, beep beep! This course guides students to discover computer science and robotics concepts by programming their own virtual robot through a series of gamified missions. In addition to discovering the nuts and bolts of coding and controlling robots, they’ll practice STEM, computational thinking, problem solving, and soft skills that include creativity and inquiry. Suitable for a wide age range.

Suggested for

Grade 5-9

Blockly

20-25 hours of activity



For teachers of all backgrounds

Easy, web-based access

Encourages peer collaboration

Cyber Robotics 101 is perfect for students (and teachers) with little to no background in CS or robotics. It covers a broad set of topics that helps beginners get their bearings.

### STUDENT OUTCOMES:

- + Writing algorithms and code
- + Understanding algorithm and code
- + Practicing control flow: loops, if/else, and more
- + Exploring navigation: screw and smooth turns
- + Discovering detection: touch, distance, color, gyro
- + Practicing object manipulation: robot’s arm

CSTA and NGSS alignment

All lessons include guided walkthroughs with clear learning objectives.

### TEACHING RESOURCES:

- + Teachers' guide
- + Instructional videos
- + Suggested solutions (for teachers)
- + Slide deck to lead classroom sessions
- + Class conclusion questions
- + Learning progress heatmap
- + Knowledge base and help desk

START FREE TRIAL NOW!