CoderZ

Python Gym

Advanced coding and robotics for middle and high school students

Get ready to wrap your head around Python, one of today's most popular programming languages! Python Gym helps students flex their coding muscles with text-based programming and syntax. Further exploring the concepts learned in Cyber Robotics 102, Python Gym takes students to deeper implementations of controls, p-controllers, and detection of the nth obstacle, all while navigating a changing physical environment.

Suggested for

Grade 8-12 | 🐍 **Python** | **30 hours of activity**

For teachers of all backgrounds | **Easy, web-based access** | **Self-paced classes**

Python Gym is a follow-up course to Cyber Robotics 102 and is intended for students with an intermediate understanding of programming. The series of short structured missions allow students to progress at a self-directed pace.

All lessons include guided walkthroughs with clear learning objectives.

CSTA and NGSS alignment

STUDENT OUTCOMES:

+ Text-based programming with Python
+ Using Python Tuple data structure
+ Implementing p-controllers in different areas
+ Using algorithms for finding the nth object
+ Using GPS for space orientation
+ Effect of sensor location on robots' ability to navigate

And more!

TEACHING RESOURCES:

+ Course guide
+ Suggested solutions (for teachers)
+ Class conclusion questions
+ Learning progress heatmap
+ Knowledge base and help desk

Learn More