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Learn about MATLAB and Simulink Capabilities
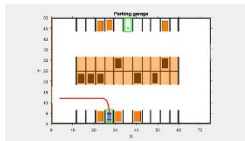
Automated Driving
mathworks.com/solutions/automotive/automated-driving

Design automated driving systems including driving scenario simulation, sensing, path planning, and sensor fusion and controls.

Model Predictive Control
mathworks.com/products/mpc

Design and simulate MPC controllers for developing automated driving applications such as adaptive cruise control, lane keeping assist, parallel parking and lane following control systems.

Reinforcement Learning
mathworks.com/products/reinforcement-learning

Design and train policies using reinforcement learning. Generate code from trained policies for deployment to embedded devices.

Resources for Learning and Teaching Control Systems

Low-Cost Hardware Support
mathworks.com/hardware-support

Download hardware packages for Arduino, Raspberry Pi, and LEGO.
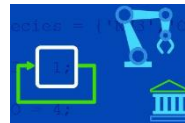
MATLAB Tech Talks
mathworks.com/tech-talks

Watch tech talks to learn fundamentals of control systems, deep learning, systems engineering, reinforcement learning and many more engineering concepts.

Teaching Controls with MATLAB and Simulink
mathworks.com/academia/courseware

Explore controls teaching resources including a sampling of course curricula, virtual labs, educational videos, code examples and auto grading tools.

Instructor resources for teaching with MATLAB and Simulink:

- Learn through interactive examples with MATLAB and Simulink Onramps: *matlabacademy.mathworks.com*
- Classroom training in MATLAB or other MathWorks products: *mathworks.com/training-schedule*
- Online teaching with MATLAB and Simulink: *mathworks.com/academia/online-teaching*
- Hardware for Project-Based Learning: *mathworks.com/academia/hardware*
- Virtual Labs and Projects with MATLAB and Simulink: *mathworks.com/academia/online-teaching/virtual-labs*
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