LEGO education
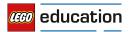
Autonomous Parking

Design cars that can park themselves safely without driver intervention.

Connect

Make sure that you can answer to the following questions:

- How do autonomous cars work?

- What would it take to ensure that autonomous cars are safe?

- What types of movements do autonomous cars need to perform?

Think about what you have learned, then document it. Describe the problem in your own words. Creatively record your ideas and findings.

Construct

Build

Start by constructing this model.

Program

Write a program that will make the robot turn three times in various ways.

Think about what you have learned, then document it. Describe your pseudocode for this task. Creatively record your ideas and findings.

Contemplate

Choose one of the following autonomous driving scenarios and create a program for it:

- Parallel parking
- Angle parking
- Perpendicular parking.

Think about what you have learned, then document it. Describe your pseudocode for this task. Creatively record your ideas, and findings.

Differentiation

Create a program that simulates displaying appropriate warning lights while parking. (e.g., use the EV3 Brick Status Light to display reverse warning lights).

Share

Think about what you have learned, then document it. Creatively record and present your ideas, creations, and findings.

Continue

Explore text-based programming solutions for this activity and compare these solutions using different programming languages.