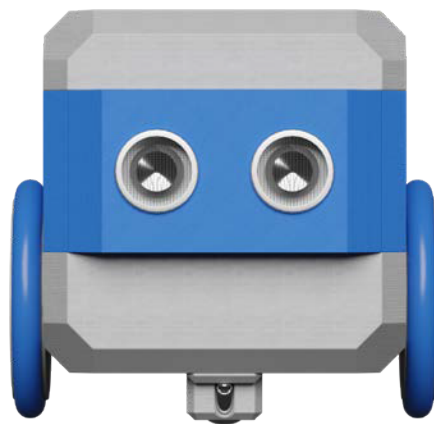


Learning with Otto Starter Kit



Teacher Guide

Lesson 04 - Building Otto

Building Otto

Overview	Learning Objectives
Students will build and customize their Otto robot using the components in their Otto kit.	1a, 4a

Materials required

- Building Otto slides
- Otto Starter kit

Optional material

- Building Otto worksheets

Connect students with Otto

The teacher will introduce the Otto robot by showing a video about its features and capabilities. After watching the video, **if there is an Otto already assembled**, the teacher will show the robot to the students, showcasing its physical components and explaining how they contribute to its functionality. A list of the components is available in slide 2.

Optional: Controlling Otto with remote control

To further engage the students, the teacher can connect the robot to the [remote control app](#), demonstrating how to operate and control the robot using the app's interface.

 If you need help to learn how to connect and use Otto web control, check this [community forum post](#).

Activity: Building Otto

In slide 3, there is a step-by-step video of how to build Otto in the Starter Kit. Estimating how long it will take students to build the robot is not easy, as their skills and abilities to follow instructions may vary significantly. To facilitate the activity, we can suggest a few approaches:

Teacher-centered approach:

The teacher displays every step of the building instructions on a large display and allows students to build at their own pace. The teacher will not move to the next step until every student has finished the current step. This approach ensures that all students complete the activity roughly at the same time.

Peer support approach:

Form small groups of 2-3 students. Each student builds their own robot, but they can help and support each other to complete the building process together. This way, students with less experience or focus difficulties can receive assistance from their peers, ensuring everyone completes the activity more efficiently. This approach will add learning objective 5a to this lesson.

Student-centered approach:

Each student builds their own robot independently. Once a student completes building their robot, the teacher can encourage them to assist a classmate who may need help or guidance. This approach fosters a collaborative learning environment and encourages students to help each other, promoting teamwork and problem-solving skills.

Feel free to choose the approach that best suits your class dynamics and encourages a positive and engaging learning experience during the robot-building process!

 You can use the worksheets after completing the build as an extra activity before moving onto customizing and programming the robot.

Activity: Customize Otto

Invite your students to customize their robots (slide 4) using the stickers that come in the kit. Feel free to let them try other materials to customize such as colored paper, markers or other available supplies.

Lesson Evaluation

- ☐ Students followed the step-by-step video instructions for building Otto.
- ☐ All students completed building their Otto robots.
- ☐ Students demonstrated creativity in personalizing their robots.
- ☐ Students demonstrated teamwork and problem-solving skills during the building process.