

Microbit Traffic Lights

40 minutes

Intermediate Robotics & Engineering

WHAT THIS LESSON DOES

In this step-by-step lesson, you'll create a Microbit project, add the Stopbit extension, and test all the lights. You'll learn about sequences in coding and program your traffic lights to display a sequence using on/off and state methods. You'll test your sequences to ensure they're working correctly.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand and apply the process of creating a new Microbit project.
- Learn to add and utilise the Stopbit extension for programming traffic lights kit.
- Gain skills in testing and troubleshooting the functionality of the lights.
- Comprehend the concept of 'sequence' in coding and apply it to program traffic lights.
- Develop proficiency in programming the sequence of traffic lights using on/off and state methods.

BEFORE THE BELL

- In this lesson, students will create a new Microbit project on makecode.com, add the Stopbit extension, and test all the lights. They will learn about sequences in coding and apply this knowledge to program a traffic light sequence using on/off and state methods. Students will need to check the correct display of lights in each sequence.

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HOW THE LESSON RUNS

Create a new Microbit project

Add the Stopbit extension

Test all the lights

What is a sequence?

Program the sequence using on/off

Program the sequence using state