

Traffic Lights and Car Communication

60 minutes**Designing and Building for the Future**

WHAT THIS LESSON DOES

In this step-by-step lesson, you'll learn how to code a set of traffic lights and a robot car using Microbits. You'll program the traffic lights to run through a sequence and broadcast their state, which the car will receive and respond to accordingly. The lesson also includes a challenge to modify the code so the car only responds when close to the traffic lights.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand and apply the concept of radio communication between Microbits.
- Program a sequence of traffic light signals using code blocks.
- Develop skills to broadcast and receive specific messages based on traffic light states.
- Control the movement of a robot car based on received messages.
- Enhance problem-solving skills by modifying the code to respond based on the proximity of the car to the traffic lights.

Traffic Lights and Car Communication

HOW THE LESSON RUNS

Introduction

Program the traffic lights

Add the Stopbit extension

Program the sequence

Broadcast the state

Program the car

Receive the message

Download the code

Challenge