

Traffic Light Reaction Game

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

WHAT THIS LESSON DOES

In this step-by-step lesson, you'll create a fun traffic light reaction game using your micro:bit and STOP:bit Traffic Lights. You'll learn to program the lights, create variables, and measure reaction times. By the end, you'll have a game that challenges you and your friends to react as quickly as possible when the light turns green.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Develop understanding of micro:bit and STOP:bit Traffic Lights for creating a reaction game.
- Learn to add and utilise the "stopbit" extension in the MakeCode toolbox.
- Understand and apply the concept of variables to measure reaction time.
- Develop skills to program micro:bit buttons for specific actions.
- Learn to display data on the micro:bit's LED matrix and interpret the results.

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HOW THE LESSON RUNS

Create a New Project

Add the Stopbit extension

Create the Variables

Button A Pressed

Button B Pressed

Display Reaction Time

Test Your Game

Challenge Your Friends