

LED Flags

60 minutes

Exploring Electronics and Light

WHAT THIS LESSON DOES

In this step-by-step lesson, you'll learn how to create LED flags using a Microbit project. You'll start by making simple bicolor and tricolor flags, then progress to a more challenging task of coding the LED to represent the American flag. This lesson combines creativity with coding skills.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand and apply the concept of bicolor and tricolor flags using LED strips.
- Create and manage a new Microbit project effectively.
- Utilise the neopixel extension to program the LED strip.
- Develop skills to set up and interact with the LED strip using code.
- Apply coding skills to create complex patterns, such as the American flag, on the LED strip.

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HOW THE LESSON RUNS

Introduction

Create a new Microbit project

Add the neopixel extension

Setup the LED Strip

Make a bicolor flag

Make a tricolor flag

Challenge