

Microbit LED Strip

60 minutes

Exploring Electronics and Light

WHAT THIS LESSON DOES

In this step-by-step lesson, you'll learn to program a 30-LED strip using Microbits. You'll create a new Microbit project, add the neopixel extension, and set up the LED strip. You'll then program the LEDs to light up in different colours and patterns, including a rotating rainbow effect. Explore the Neopixel toolbox and experiment with your own lighting designs.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand and apply the process of programming a strip of LEDs using Microbits.
- Develop skills in creating a new Microbit project and adding the necessary extensions.
- Gain proficiency in setting up and programming the LED strip to display various colours.
- Learn to download and implement the project on Microbits, observing the effects on the LED strip.
- Explore and experiment with different code blocks in the Neopixel toolbox for creative lighting effects.

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HOW THE LESSON RUNS

Introduction

Create a new Microbit project

Add the neopixel extension

Setup the LED Strip

Make it red

Download the project and send it to your microbit

Show a rainbow

Connect your LED Strip

Rotate the rainbow!

Explore!