

Connecting LEDs to Micro:Bit Projects

Once you've coded the Micro:Bit, you need to plug in your LEDs before uploading the code.

Make sure you are following these steps carefully as you can damage the LEDs if they are not connected properly.

Step One:

1. LED stands for Light Emitting Diode. For this activity we are using addressable LEDs which means that we can code each light to show a specific color.

An addressable LED will have three pins which we need to connect:

- Ground
- Voltage
- Data input/output

2. If you are using a strip of Neopixel LEDs, your pins will look like this:



On the right, there is the voltage pin, the data input and the ground. This side will connect to the Micro:Bit

On the left, there is the voltage pin, the data output and the ground. This side will connect to the next LED in the strip

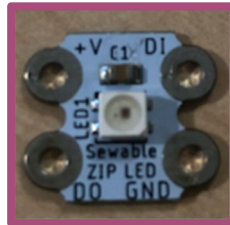
3. For this activity, there are soldered points on the LED which will connect to the Micro:Bit in this order:

LED	Micro:Bit
GND (Ground)	GND (Ground)
DIN (Data Input)	0 (Pin 0 or whichever pin you have coded)
+5V (Voltage)	3V (Voltage)

Connecting LEDs to Micro:Bit Projects

Step Two:

1. Other LEDs might come individually which you have to connect yourself. These might be used for sewing or attaching separately to a project.



These LEDs only have two points on either end rather than 3. They still have the same inputs and will connect to the Micro:Bit the same way.

LED	Micro:Bit
GND (Ground)	GND (Ground)
DI (Data Input)	0 (Pin 0 or whichever pin you have coded)
+V (Voltage)	3V (Voltage)

2. To create a chain of LEDs which connect to each other, LED1 needs to be manually connected to LED2 using this method:

LED1 (connected to Micro:Bit)	LED2
GND (Ground)	GND (Ground)
D0 (Data Output)	DI (Data Input)
+V (Voltage)	+V (Voltage)

Connecting LEDs to Micro:Bit Projects

