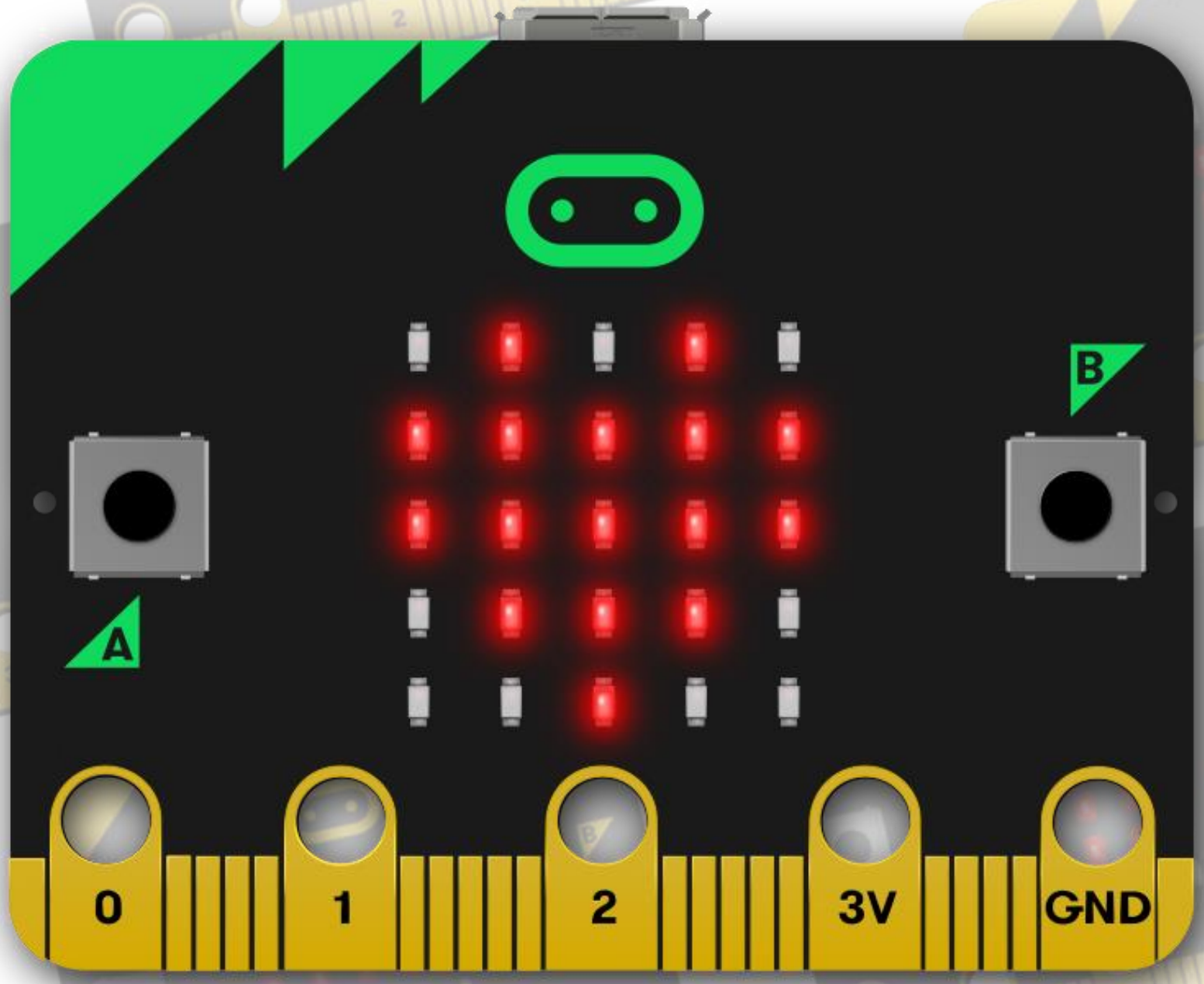
INTERNET CONNECTION NEEDED

edublocks

Making the transition from Scratch to Python easier



Using the Buttons

MICRO:BIT EDUBLOCKS EDITOR

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EduBlocks.org
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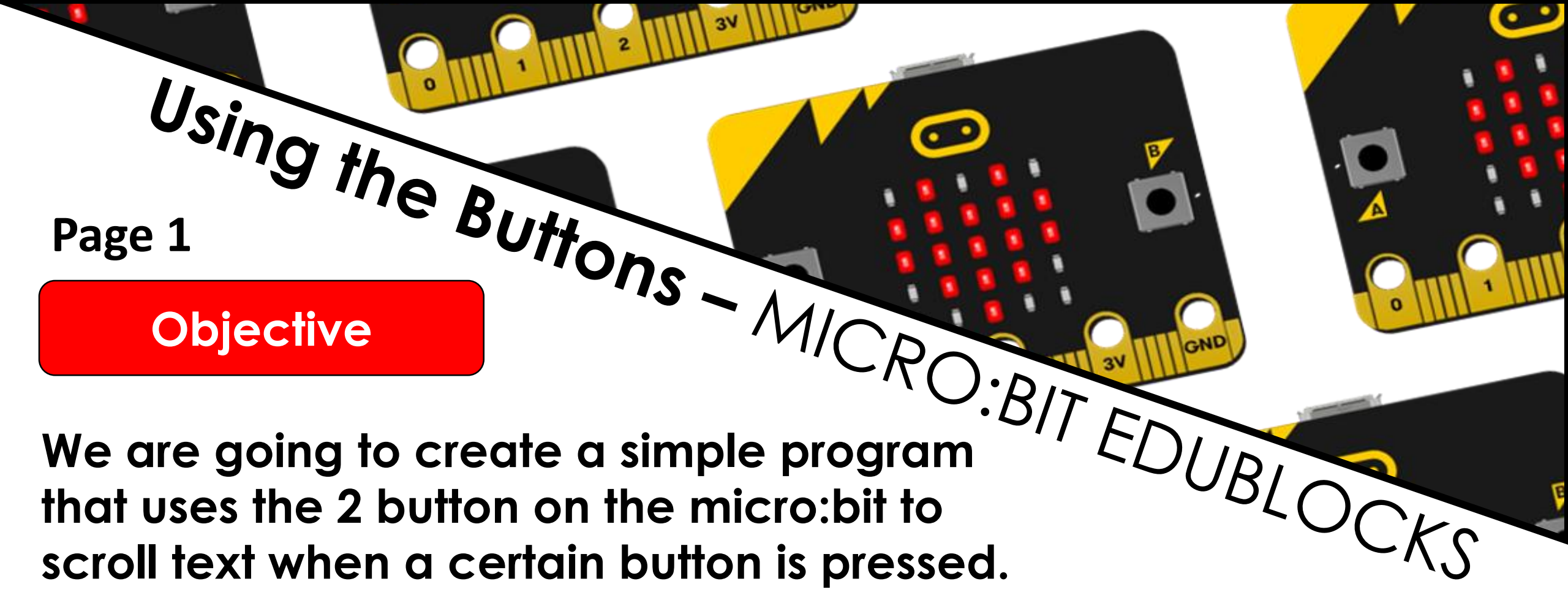

Using the Buttons – MICRO:BIT EDUBLOCKS

Objective

We are going to create a simple program that uses the 2 button on the micro:bit to scroll text when a certain button is pressed.
You will need an Internet Connection.

Getting Started

1. Start by going to a web browser on your PC or MAC.. Type in the following address in the search bar or click on the link below:

https://microbit.edublocks.org

Let's Code

Now its time to build our code. We can drag our code blocks from the EduBlocks toolbar which is on the left hand side of the screen. The pink blocks can be found in the basic menu. We are going to put the rest of the code inside of the While True block. This will make sure that the micro:bit is always checking for a button press.

```
from microbit import *
while True:
```

INFO:

This section of code will import the micro:bit library and create a while true loop to always check if a button is being pressed.

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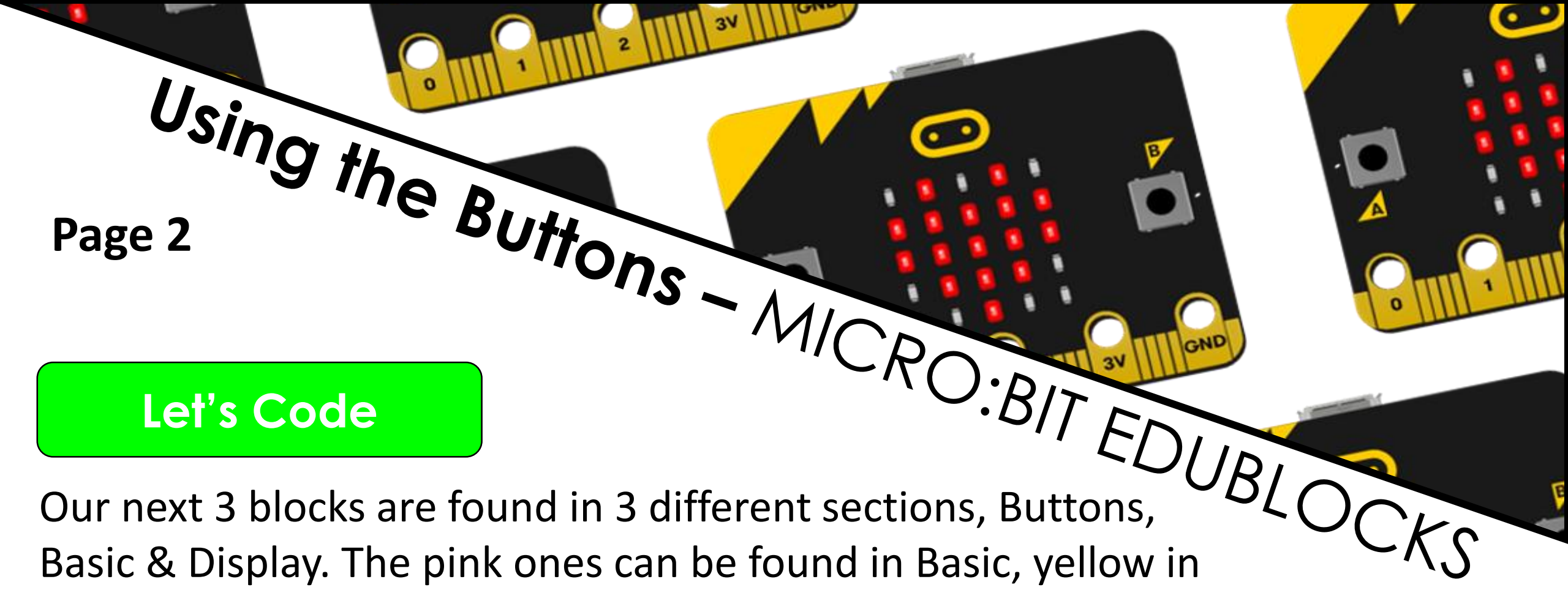

Using the Buttons – MICRO:BIT EDUBLOCKS

Let's Code

Our next 3 blocks are found in 3 different sections, Buttons, Basic & Display. The pink ones can be found in Basic, yellow in Display & blue in Buttons. Make sure to put this code INSIDE THE WHILE TRUE LOOP.

```
if button_a.is_pressed():
    display.scroll("Button A Pressed")
```

INFO: The Button block is connected to a input inside the if block. This code will check if the A button is pressed

Our next 3 blocks can also be in the 3 different sections of Buttons, Basic & Display. This code goes underneath the if block inside the while true. Check the next page for a full code listing if you are unsure.

```
elif button_b.is_pressed():
    display.scroll("Button B Pressed")
```

INFO: These 3 blocks will check to see if the B button is **pressed on your micro:bit**

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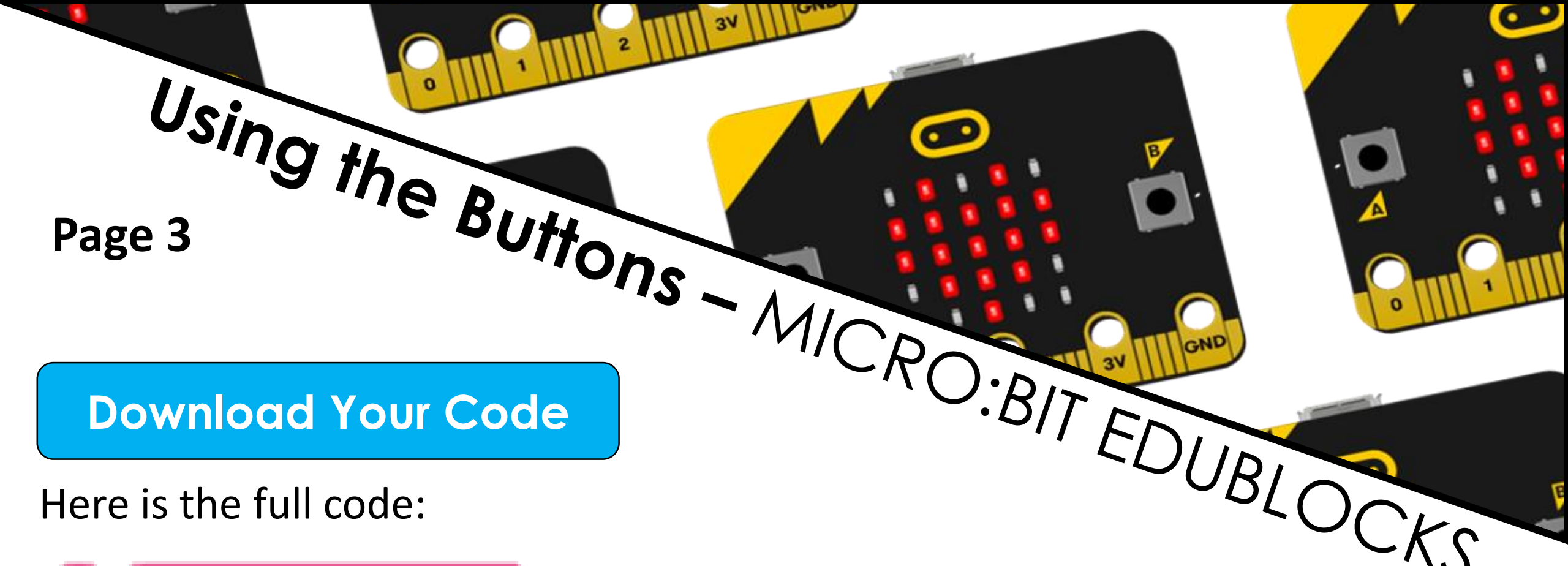

Using the Buttons – MICRO:BIT EDUBLOCKS

Download Your Code

Here is the full code:

```
from microbit import *
while True:
    if button_a.is_pressed():
        display.scroll(" Button A Pressed ")
    elif button_b.is_pressed():
        display.scroll(" Button B Pressed ")
```

INFO: Your program should look like the one on the left of this INFO BOX. Go back and check through all of your code to make sure you have not made any mistakes.

Plug in your micro:bit to a USB port. To download our code onto the microbit. Click the DOWNLOAD HEX button in the navigation bar at t

Download Hex

The file will now download to your PC. On Google Chrome, it will show at the bottom. Click on the up arrow on the grey file at the bottom and select Show in folder. Drag the highlighted file onto the micro:bit on the left hand side. For a video on how to do this check:

uploadmymicrobit.edublocks.org

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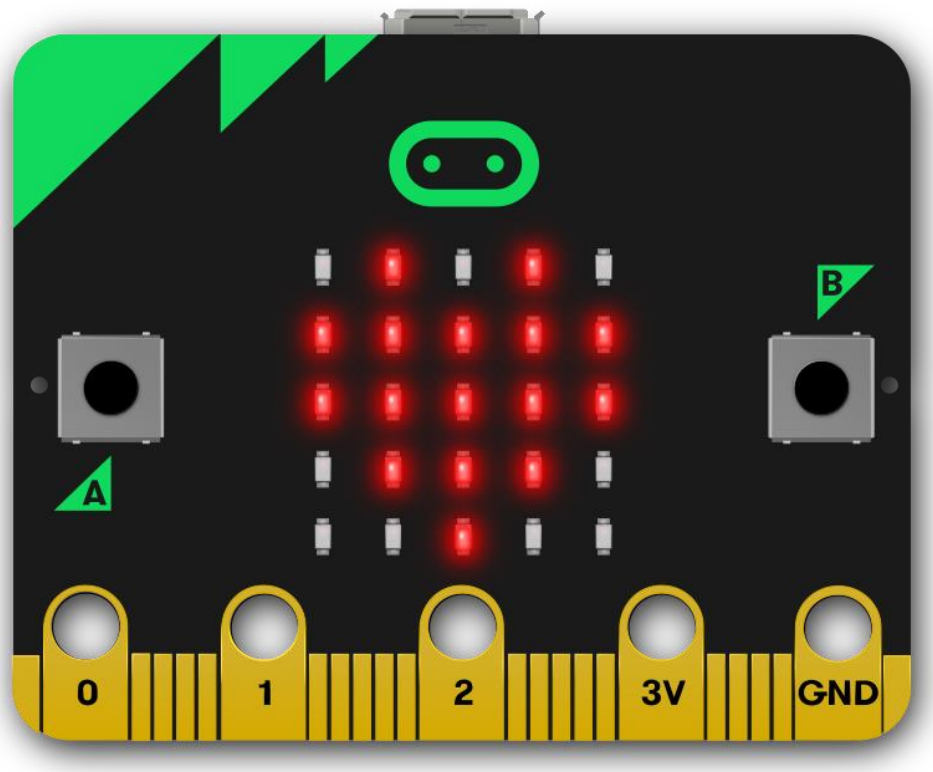
Using the Buttons – MICRO:BIT EDUBLOCKS

Run Your Code

Now it's time to run our code. Once the file has been dragged onto the micro:bit and the orange light on the back has finished blinking, you should now be able to interact with your micro:bit buttons. Press the A button and see what it does. It should scroll "Button A Pressed". The same will happen with button B, but it will scroll "Button B Pressed".



Outcomes

In this tutorial we have learnt how we can use the EduBlocks to code in MicroPython to use the buttons on the micro:bit.

Challenge: Try getting the micro:bit to scroll a different message, or even scroll a message when both buttons are pressed.

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