



raspikidd



Internet  
Required

**SAY HELLO**



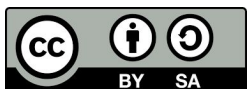
**WITH**

**KITRONIK INVENTOR'S KIT**

**AND**



python™

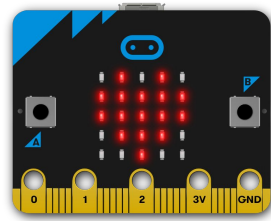


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# SAY HELLO



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## OBJECTIVE

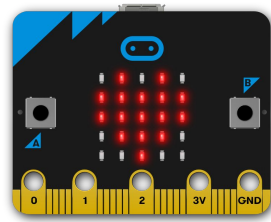
Within this tutorial, you are going to learn how to display an image on the LED matrix. You will also learn how to display text on the LED matrix and how to use external buttons as the A and B buttons on the micro:bit

## WHAT YOU WILL NEED

- A micro:bit
- Kitronik Inventor's Kit
- Micro USB cable
- A Computer to Program the micro:bit
- Battery pack for micro:bit (optional)



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## GETTING STARTED

1. Open your favourite python editor. Whether it's mu or the online Python editor
2. The online version can be found at the link below:

<http://python.microbit.org/v/1>

## CREATING THE CIRCUIT

From the inventor's kit you will need:

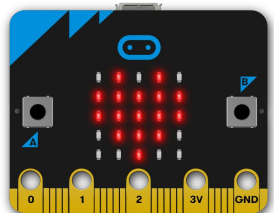
2 x push buttons

4 x male to female jumper wires

1 x base plate with the breadboard and micro:bit edge connector attached, also plug your micro:bit into the edge connector.



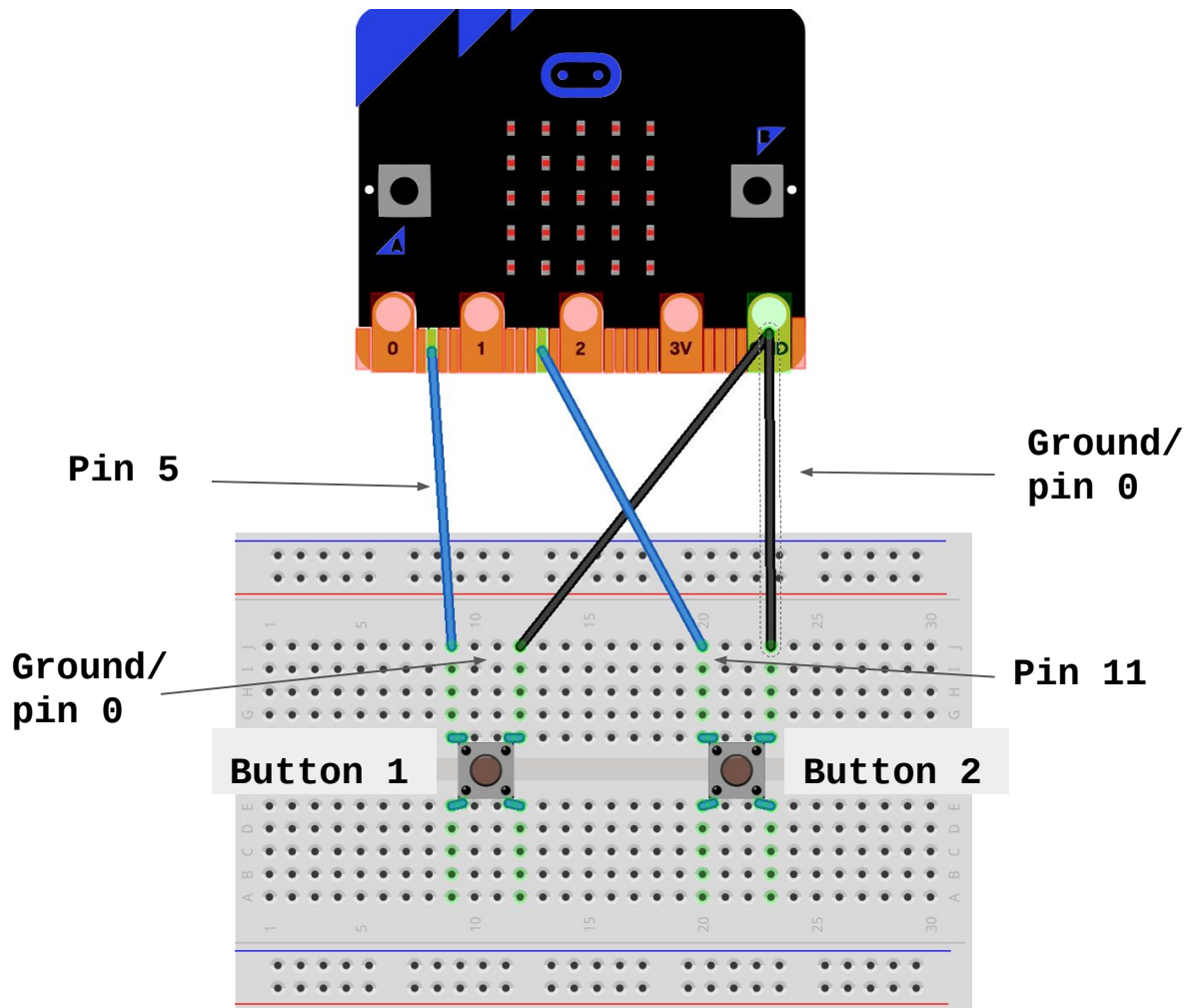
# SAY HELLO



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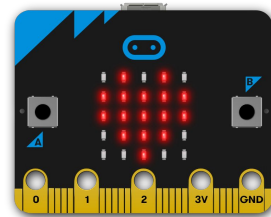
## CREATING THE CIRCUIT

Your circuit should look like this but with the edge connector attached to the micro:bit.





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## CODING

Now to create some code.

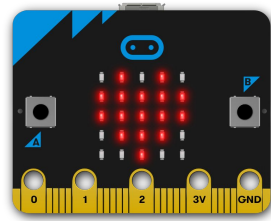
```
from microbit import *  
  
while True:  
    if button_a.is_pressed():  
        display.show (Image.HAPPY)  
    elif button_b.is_pressed():  
        display.scroll("Hello World")
```

## RUNNING THE CODE WITH MU

1. Plug your micro:bit into your computer using the Micro USB cable.
2. Click on Flash The 'Flash' icon is a yellow circle with a white border, containing a blue robot head icon and the word 'Flash' below it.
3. Wait for the light on the back of the micro:bit to stop flashing.
4. Press button 1 or 2 to see your code run.



# SAY HELLO



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## **RUNNING THE CODE WITH ONLINE EDITOR**

1. Click on the download button. This will download the .hex file to your computer.
2. Plug your micro:bit into your computer using the Micro USB cable.
3. Copy the .hex file to your micro:bit.
4. Wait for the light on the back of the micro:bit to stop flashing.
5. Press button 1 or button 2 to see your code run.

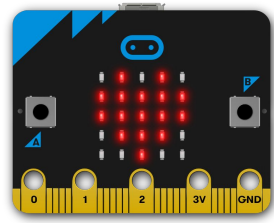
## **WHAT WILL HAPPEN**

When button 1 is pressed you will see a happy face appear on the LED matrix on the micro:bit and when button 2 is pressed you will see the text "Hello world" scrolling across the LED matrix.

Button 1 and 2 work the same as if you pressed button A and B on the micro:bit.



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## FINAL WORDS

Well done you have finished your first project using the Kitronik inventor's kit and Python. Continue with the next project for more electronics and Python fun.