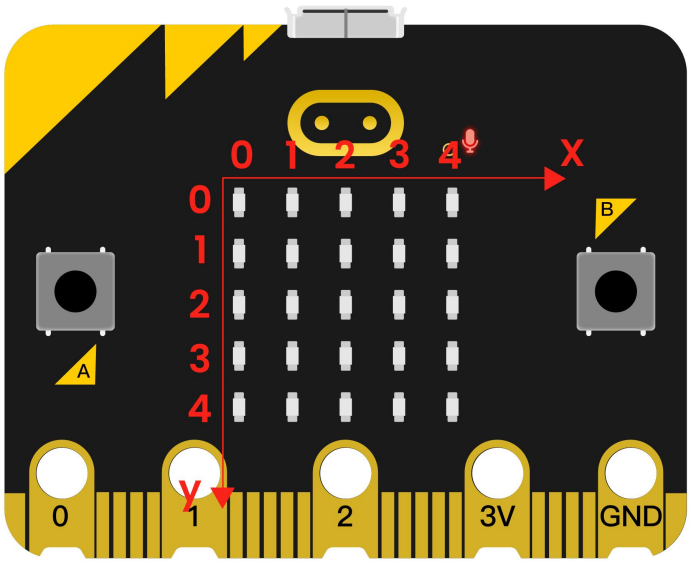
Keyestudio

Project 2: Light Up A Single LED:

1. Description

Micro:bit motherboard consists of 25 light-emitting diodes, 5 pcs in a group, which correspond to x and y axis, forging a 5*5 matrix. Moreover, every diode locates at the point of x and y axis.

Virtually, we could control an LED by setting coordinate points. For instance, set coordinate point（0，0）to turn on the LED at row 1 and column 1; light up LED at the row 1 and column 3, we could set （2，0) and so on.



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2. Components Needed

		
Micro:bit * 1	USB Cable * 1	

3. Test Code

You can upload the code directly from the tutorial (read the "Development Environment Configuration" file if in doubt).

Code:

```
from microbit import *


val1 = Image("09000:""00000:""00000:""00000:""00000:")
val2 = Image("00000:""00000:""00000:""00000:""00090:")
val3 = Image("00000:""00000:""00000:""00000:""00000:")


while True:
    display.show(val1)
    sleep(500)
```

```
        display.show(val3)
        sleep(500)
        display.show(val2)
        sleep(500)
        display.show(val3)
        sleep(500)
```

4. Code Explanation

from microbit **import** *	Import the library file of micro：bit
val1 = Image("09000:""00000:""00000:""00000:""00000:")	Set Image() to val1 Set pixel of LED on micro:bit to the value in 0~9 Pixel of each LED on micro:bit can be set in one of ten values If set pixel to 0 (zero) ， which means in close state, literally, 0 is brightness, 9 is best brightness
val2 = Image("00000:""00000:""00000:""00000:""00090:")	Set Image() to val2
val3 = Image("00000:""00000:""00000:""00000:""00000:")	Set Image() to val3

while True:	This is a permanent loop that makes micro:bit execute the code of it.
display.show(val1) sleep(500) display.show(val3) sleep(500)	LED at (1,0) blinks for 0.5s
display.show(val2) sleep(500) display.show(val3) sleep(500)	LED at (3,4) flashes for 0.5s

5. Test Result

After downloading code, plug in power with a USB cable, you will see the LED at(1,0) flashes for 0.5s then the LED at (3,4) blinks for 0.5s, in loop way.