



## RGB LED for micro:bit MNK00064

The MonkMakes RGB LED for micro:bit provides a colourful add-on to your micro:bit. Connect it up with alligator clips and then use the three outputs of your micro:bit to control the red, green and blue channels to mix up any colour of light you want.

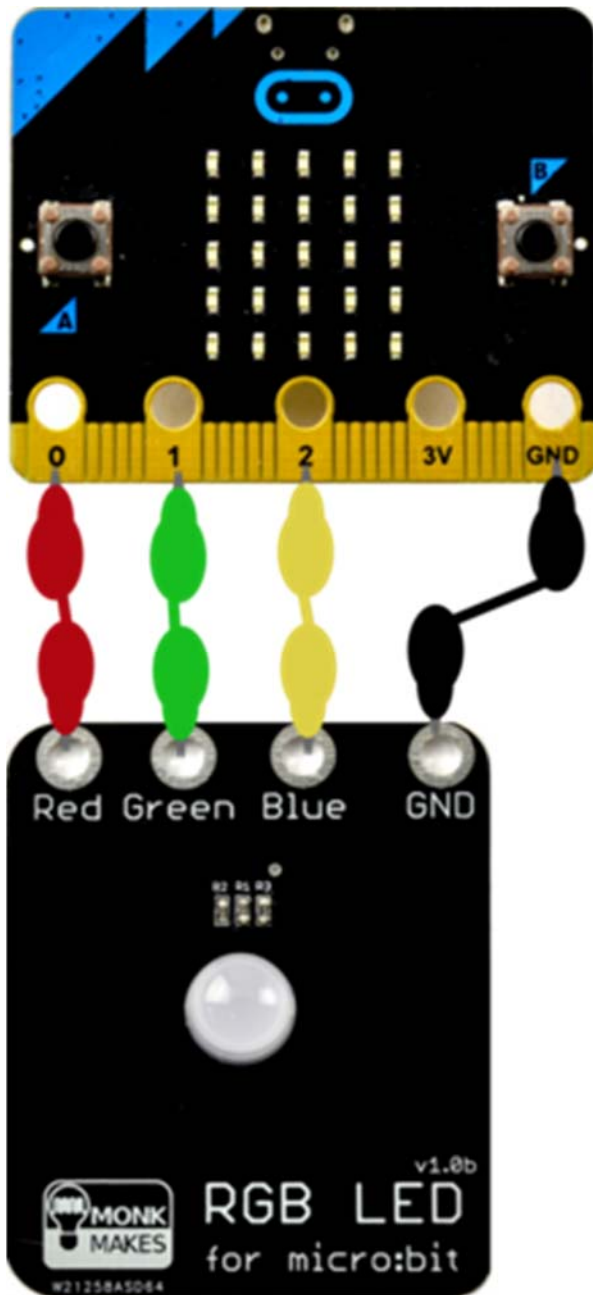
### Features

- Easy to connect
- Powered directly from micro:bit pins
- Useful for teaching color mixing.

- **Getting Started**

- **Connecting to your micro:bit**

Connect the RGB LED to the micro:bit as shown below. When attaching the alligator clips to the micro:bit, make sure that the clips are perpendicular to the board so that they are not touching any of the neighbouring connectors on the micro:bit edge connector.



# JavaScript Blocks Editor

## Traffic Signal Example

Click on the example below to open the code in the JavaScript Blocks Editor. Once its running on your micro:bit it will cycle through the colors of a traffic signal.

```
forever
  call function red
  pause (ms) 4000
  call function orange
  pause (ms) 1000
  call function green
  pause (ms) 5000
  call function orange
  pause (ms) 1000

function red
  analog write pin P0 to 1023
  analog write pin P1 to 0
  analog write pin P2 to 0

function green
  analog write pin P0 to 0
  analog write pin P1 to 1023
  analog write pin P2 to 0

function orange
  analog write pin P0 to 800
  analog write pin P1 to 100
  analog write pin P2 to 0
```

The code consists of three main parts: a 'forever' loop and three functions: 'red', 'green', and 'orange'. The 'forever' loop repeatedly calls these functions with specific delays. The 'red' function sets pin P0 to 1023, P1 to 0, and P2 to 0. The 'green' function sets pin P0 to 0, P1 to 1023, and P2 to 0. The 'orange' function sets pin P0 to 800, P1 to 100, and P2 to 0.

# MicroPython

## TRAFFIC SIGNAL EXAMPLE

Paste the following code into the Python window and then Download the file and copy it onto your your micro:bit

```
from microbit import *

def set_rgb(red, green, blue):
    pin0.write_analog(red)
    pin1.write_analog(green)
    pin2.write_analog(blue)

while True:
    set_rgb(255, 0, 0)
    sleep(4000)
    set_rgb(800, 100, 0)
    sleep(1000)
    set_rgb(0, 1023, 0)
    sleep(5000)
    set_rgb(800, 100, 0)
    sleep(1000)
```