

STOP:bit for the BBC micro:bit

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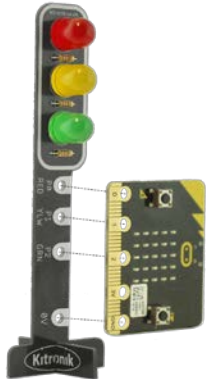


Introduction: The STOP:bit is a bolt-on/clip-on board for the BBC micro:bit replicating a traffic light. The PCB has been designed to have the same physical features of a traffic light, with the addition of a BBC micro:bit as the pedestrian crossing control box.

LEDs: The STOP:bit has 3 10mm LEDs (1 Red, 1 Yellow, 1 Green). Each of these LEDs is driven from one of the BBC micro:bit IO pins. The table to the right gives the connections between the LEDs and the IO pins.

Pinout	
P0	Red LED
P1	Yellow LED
P2	Green LED

Power: Power is supplied from the BBC micro:bit connections



Connection: x5 M3 countersunk screws allow the user to bolt the STOP:bit onto the BBC micro:bit. Crocodile clips also can be used between the pads on the STOP:bit and the matching pads on the BBC micro:bit.

Stand: The bottom section of the STOP:bit PCB is designed to break off and then slot together with the main PCB to form a stable cross base.

Software: Custom MAKECODE blocks have been created. They are available at:

<https://github.com/KitronikLtd/pxt-kitronik-stopbit>

It is also possible to use the 'digital write pin' block to operate the LEDs.

```
on button A pressed
  Turn Red Traffic Light On
  Turn Yellow Traffic Light On
  Turn Green Traffic Light On

on button B pressed
  Turn Red Traffic Light Off
  Turn Yellow Traffic Light Off
  Turn Green Traffic Light Off
```

