**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.

<table>
<thead>
<tr>
<th>Pinout</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>P0</td>
<td>Red LED</td>
</tr>
<tr>
<td>P1</td>
<td>Yellow LED</td>
</tr>
<tr>
<td>P2</td>
<td>Green LED</td>
</tr>
</tbody>
</table>

**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](https://github.com/KitronikLtd/pxt-kitronik-stopbit)

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

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**Pinout**

- **P0 / Red LED pin**
- **P1 / Yellow LED pin**
- **P2 / Green LED pin**

**Power: 3V (Not connected)**

**Dimensions:**

- Red LED: 10mm dia
- Yellow LED: 10mm dia
- Green LED: 10mm dia

**Connection:**

- **P0 / Red LED pin**
- **P1 / Yellow LED pin**
- **P2 / Green LED pin**

**Stand:** Snap-off base stand

**Power:** 3V (Not connected)