ZIP™ Halo Board for the BBC micro:bit

www.kitronik.co.uk/5625

This Halo board for the BBC micro:bit incorporates 24 ZIP™ colour addressable LEDs, connected to the BBC micro:bit pin P0. It also breaks out P1 and P2 to a standard 0.1" footprint.

The board includes an integrated nut and bolt connection for the BBC micro:bit.

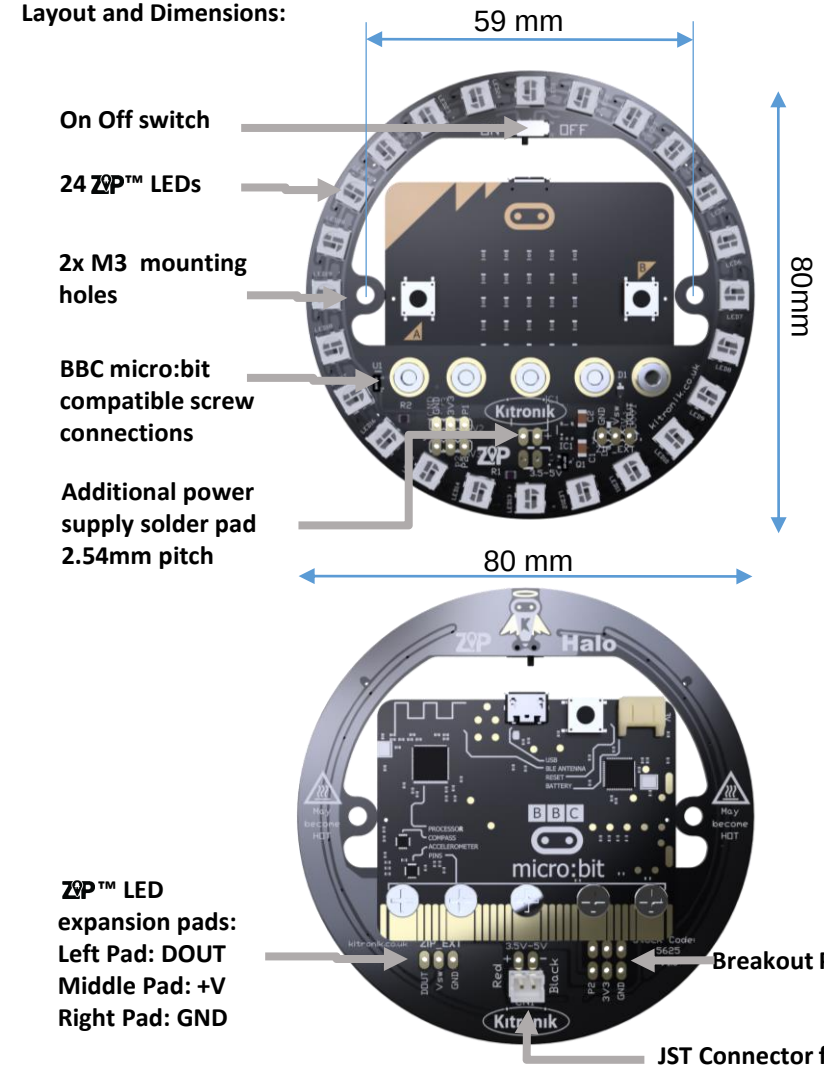
The board produces a **regulated supply** that is fed into the 3V and GND connections to **power the connected BBC micro:bit**, removing the need to power the BBC micro:bit separately. To protect the BBC micro:bit if power is supplied through it the ZIP™ Halo will not illuminate.

Connecting a BBC micro:bit:

The board has been designed so that the BBC micro:bit can be bolted to the back, using the 5 supplied M3x6 countersunk machine screws.

Examples: Uses for the Halo could include a lamp, clock or a compass. For more details see: http://www.kitronik.co.uk/ziphalo

Layout and Dimensions:



The Halo board is 11mm thick (including BBC micro:bit)

ZIP™ Halo Board for the BBC micro:bit

www.kitronik.co.uk/5625

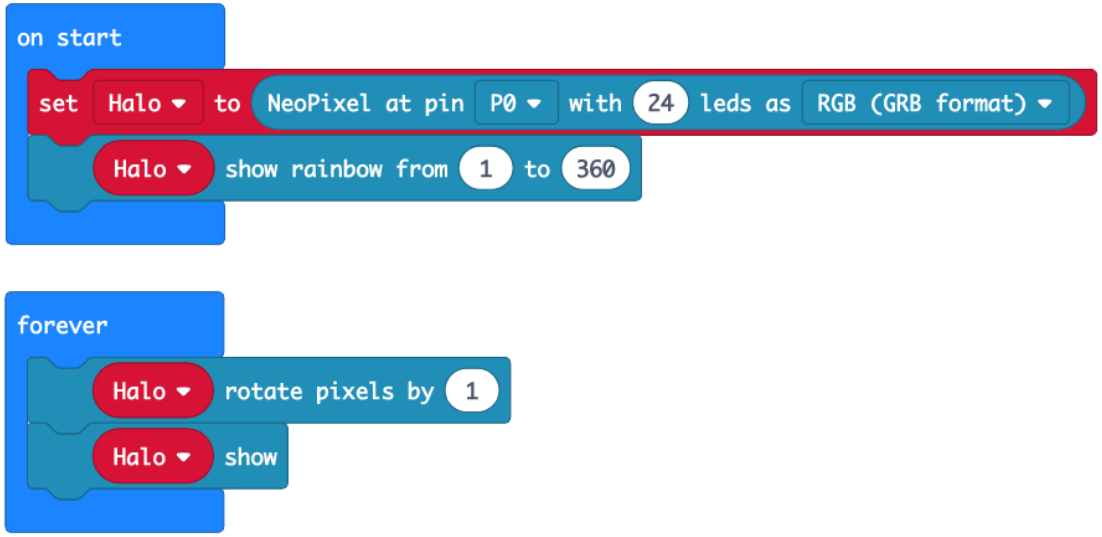
Electrical Information

Operating Voltage (Vcc)	3.5V – 5V
Number of ZIP LEDs	24
Number of external channels	3 (1x ZIP LED, 2x IO pin, each IO channel rated +3V at 50mA)
Max Current (ZIP LED running full RGB brightness)	1.2A (50mA per ZIP)

JavaScript Blocks editor code

Kitronik ZIP™ LEDs are compatible with any WS2812B driver code and can be coded with the Microsoft MakeCode Editor.

The example blocks (right) will cause the ZIP Halo to display a rotating rainbow pattern.



Caution:

ZIP™ LEDs may become hot if used at high brightness for prolonged periods.