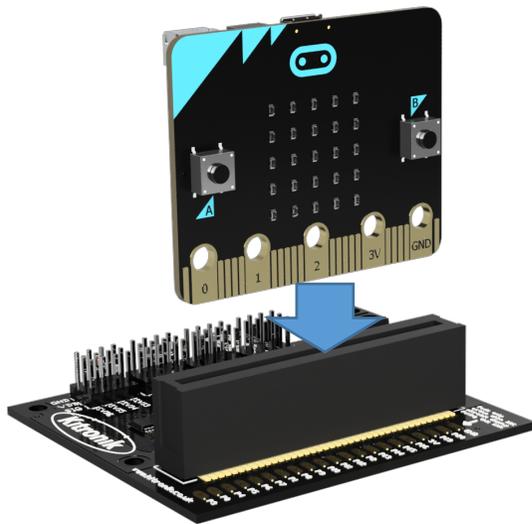# 16 Servo Driver Board for the BBC micro:bit

www.kitronik.co.uk/5612

This servo driver board for the BBC micro:bit allows up to 16 Remote Control (RC) servos to be driven simultaneously. It is based on the PCA9865 driver IC.

The board includes an integrated Edge Connector for the BBC micro:bit. Expansion Pads allow the connection of this board with other compatible micro:bit accessory boards using the "Link" pluggable pin header (www.kitronik.co.uk/4162)

The board produces a **regulated supply** that is fed into the 80 way connector **to power the inserted BBC micro:bit**, removing the need to power the BBC micro:bit directly. Power (maximum 5.5V) can be supplied to the board via either the dedicated screw connections, or the 0.1" pitch Power connector, for instance from a standard receiver battery pack.

Inserting a BBC micro:bit: To use the servo driver board the BBC micro:bit should be inserted firmly into the connector as shown left.

The board has been designed so that the BBC micro:bit can be inserted either way around (facing forward or backwards).
Note: 'Link' functionality is only enabled when facing the link interconnect header.
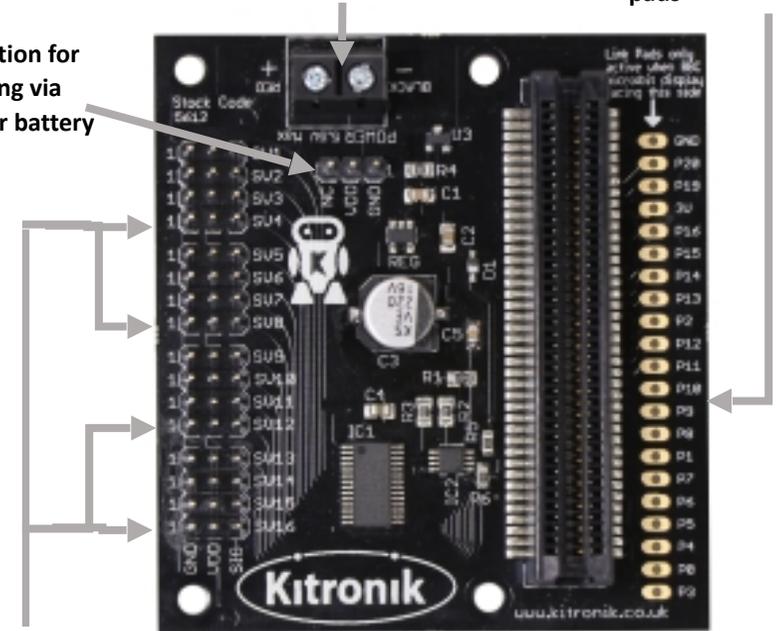
Examples of board in use:
This board can be used to control multiple servos, such as for a robot arm.

Layout:

Terminal Block for power (3 - 5.5V)

'Link' compatible expansion header pads

0.1" pitch header connection for powering via receiver battery pack

4 Groups of 4 servo connections. These use standard 0.1" pitch, with power on the middle pin, signal and ground on the outside

BBC micro:bit compatible connector

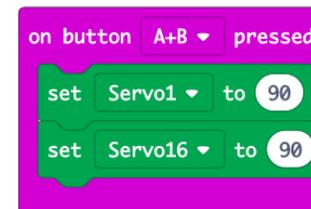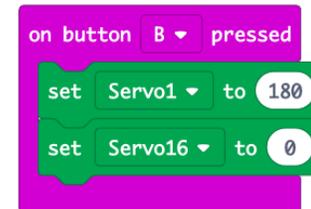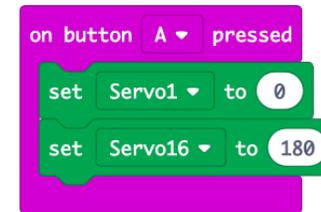# 16 Servo Driver Board for the BBC micro:bit

www.kitronik.co.uk/5612

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Electrical Information

Operating Voltage (Vcc)	3V to 5.5V
Number of Servo channels	16
Servo Voltage	Same as input Voltage
Max continuous current (all servos)	6A

JavaScript Blocks editor code

Kitronik have developed custom block and JavaScript to support the use of the 16 Servo Driver board in the micro:bit JavaScript Block editor (formerly known as PXT). These blocks can be added via the add package function in the editor from:

https://github.com/KitronikLtd/pxt-kitronik-I2C-16-servo

The example blocks (right) cause Servo 1 to move from 0 to 180 degrees and Servo 16 to do the opposite as buttons A, A+B and B are pressed.
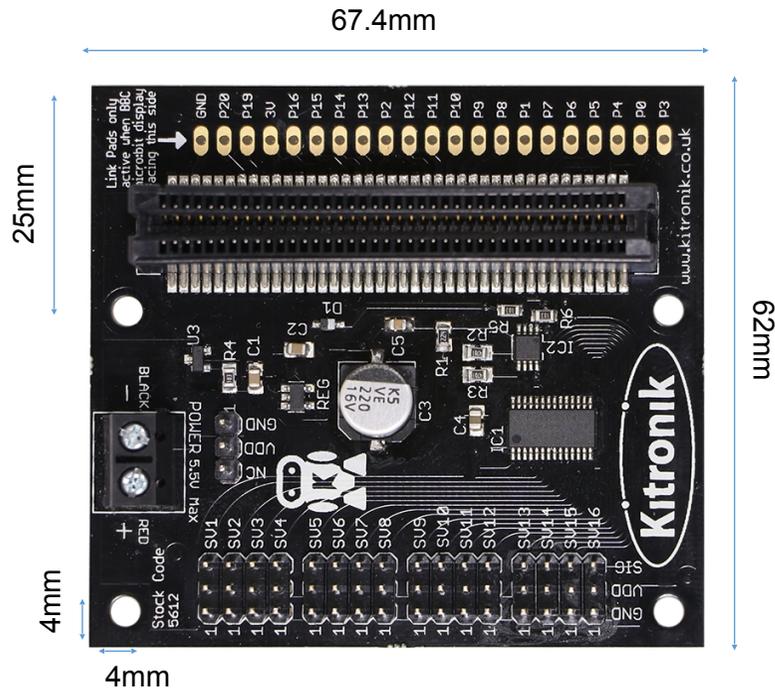
16 Servo Driver Board for the BBC micro:bit
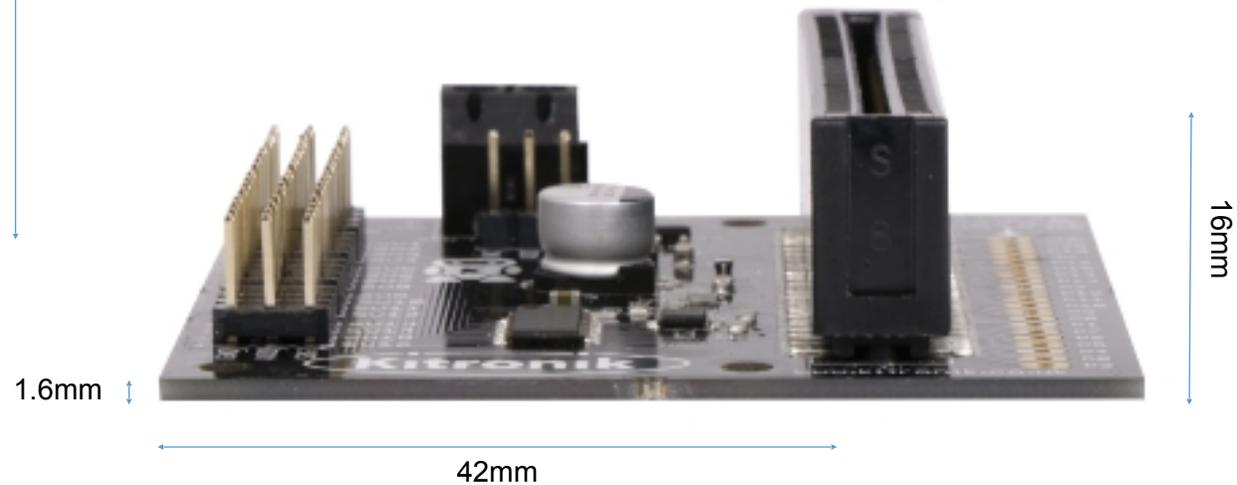
Dimensions

67.4mm

25mm

62mm

4mm

4mm

This board conforms to the "Link" standard for accessory boards for the BBC micro:bit.

This allows stacking, and control, of multiple accessory boards from a single BBC micro:bit.

See https://www.kitronik.co.uk/LinkStandard for more information about this open standard.

16mm

1.6mm

42mm

(Dimensions +/- 0.8mm)