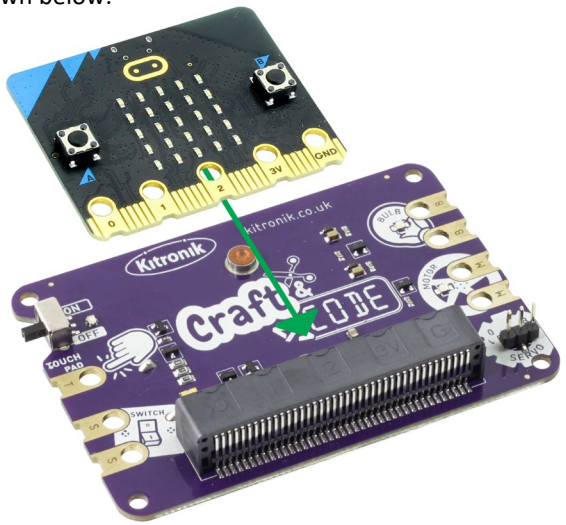
Craft and Code Board

Introduction: The Craft and Code Board is an educational electronics board designed to introduce students to the fundamentals of electronics and programming. Using any version of the BBC Micro:bit, this board allows students to design and control various craft projects using MakeCode for Micro:bit - an intuitive, block-based coding environment.
The Craft and Code product page can be found at : http://kitronik.co.uk/56120

Insert the micro:bit into the craft and code board as shown below:



Front View:

Rear View:

*The Power and Battery Status LED changes colour depending on the condition of the battery:

- Green – fresh, fully charged batteries.
- Orange – partially depleted batteries, consider replacing the batteries.
- Red/Dim Red – fully exhausted batteries, replace the batteries.

**Additionally, the Motor and Bulb outputs have status LEDs, illuminating if the output is turned on.

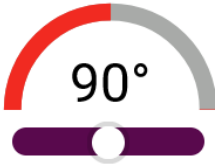
MakeCode Blocks Editor Code

Kitronik have designed a custom extension to support the use of the **Craft and Code** board in the micro:bit MakeCode Block editor. This can be added by searching “Kitronik Craft and Code” in the extensions tab.

This block turns the bulb attached to the Craft and Code board either on or off, which can be selected from the dropdown menu.

This block turns the motor attached to the Craft and Code board either on or off, which can be selected from the dropdown menu.

This block sets the position of the servo in degrees, which can be selected using the slider bar.



This is a logic block that returns the state of the switch input, and indicates when a switch connected to the switch tabs have been closed.

This block sets the speed of the motor. The speed can be selected from the dropdown menu.

This block sets the brightness of the bulb, which can be selected from the dropdown menu.

This block is used to wait for the touchpad to be pressed or not.

This is a logic block that returns the current state of the touchpad.

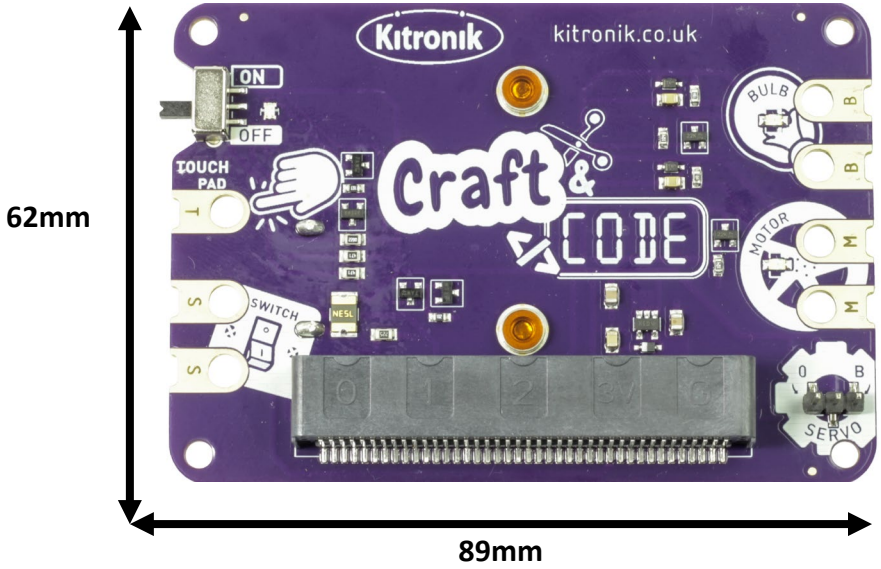
Electrical Information

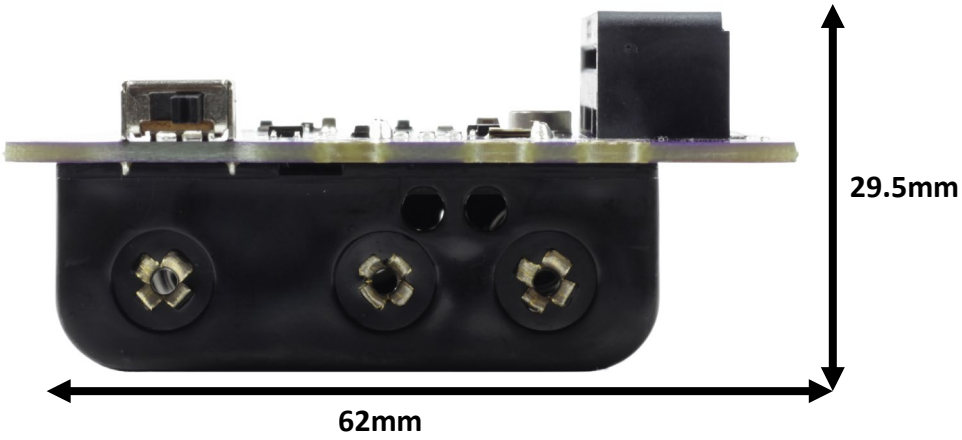
Attribute	Values
Processor	BBC Micro:bit (V1 or V2)
Operating voltage	3.5 – 4.5v
Maximum Current Draw (Approx.)	470mA
Typical Current Draw (Approx.)	350mA
Continuous Battery life (Typical, Alkaline Batteries)	8 hours
Quiescent current (Board Powered, no Micro:bit installed)	9.5mA
Recommended Battery types	Alkaline/ NiMh/ NiCad
Size of the battery	AA
Number of batteries	3

Electrical Information

Attribute	Values
Total number of clip points	7
Bulb Connection Pads	2
Motor Pads	2
External Touchpad	1
Switch pads	2
Number of Mounting Holes	4
Servo Connector	1
PCB Length	89mm
PCB Width	62mm
Size of mounting holes	M3
Battery pack size	3 x AA / EQUI/ UM 3x3

Dimensions





(Dimensions +/- 0.8mm)