MI:sound Speaker for BBC micro:bit

www.kitronik.co.uk/5649-V2



The MI:sound board is a speaker board for the BBC micro:bit. A thumb-wheel potentiometer is used to control the output volume, and a coin cell holder allows the board to be powered using a CR2032 battery. Power can also be supplied via the BBC micro:bit USB or JST connections.

Attaching a BBC micro:bit: To use the MI:sound speaker board, the BBC micro:bit should be attached using the supplied bolts, spacers and nuts as shown to the right. Only Pin 0, 3V and GND need to be connected.



Crocodile clips can also be used.

Electrical Information:

Voltage Rating	+3.3V max
Typical Current Draw (powered using CR2032 coin cell)	46.6mA (playing music at max volume)
Speaker output at max volume (powered using CR2032 coin cell)	~57dB at 0.1m
Typical Current Draw (powered via BBC micro:bit USB)	129mA (playing music at max volume)
Speaker output at max volume (powered via BBC micro:bit USB)	~81dB at 0.1m
Typical battery life	> 8 hours

Software:

The MI:sound board can be driven using both MakeCode and MicroPython. In MakeCode, any of the 'Music' package blocks can be used, and in MicroPython, both the 'Music' and 'Speech' libraries can be used.

A3.0mm Power Switch CR2032 Battery holder S1.6mm Bolt and Spacer connections



M3 Mounting Holes

BBC micro:bit connector