

Instruction Sheet: Micro:bit Prototyping Kit

Included

- 1 x Breakout Board
- 1 x Sound Cable
- 1 x Joystick
- 3 x Red 4mm Banana Cable
- 3 x Black 4mm Banana Cable
- 10 x Crocodile Clips
- 1 x Red LED
- 1 x Yellow LED
- 1 x Green LED
- 1 x LDR
- 1 x 10K Resistor
- 1 x 147 ohm Resistor
- 1 x 69.8 ohm Resistor
- 1 x 40.2 ohm Resistor
- 1 x Temperature Sensor



The BBC micro:bit school prototyping kit is everything you need to begin using the BBC micro:bit in a practical and visual way. This comprehensive school prototyping kit has been designed for use with standard 4mm banana cables and crocodile clips to eliminate the need for soldering therefore making prototyping easier and safer for your students. The kit includes the new ScienceScope micro:bit breakout board, a range of BBC micro:bit compatible products as well as a variety of components.

These instructions include the basic assembly of the breakout board so for further user instructions please go to the following location at our website. <u>https://sciencescope.uk/product/logbook-graphing-secondary-2/</u>.

Alternatively use the QR code below.







Breakout Board Assembly Instructions

The BBC micro:bit breakout board has been designed to increase the functionality of the BBC micro:bit by exposing the edge connector into multiple 4mm input and output, digital and analogue connections. This enables basic or advanced electronic circuits and control systems to be created and programmed using both the BBC micro:bit specific coding environments and traditional C/C++ coding languages.

Features

- Works with standard 4mm banana plug cables
- 12 input/output channels
 - 6 analogue/digital input and outputs
 - 4 digital input and outputs
 - 2 i2c/digital input and outputs
- 4 3V3 power output
- 4 GND channels
- External 5V DC power boost input



Assembly

The instructions below reference the "Assembly Images" sheet.

- 1. Check you have the correct parts. (Image 1)
 - a. 1 x Breakout Board
 - b. 1 x Acrylic Cover
 - c. 4 x Acrylic Spacers
 - d. 4 x Screws
 - e. 4 x Legs
- 2. Insert one screw though any one of the four corner holes on the acrylic cover. (Image 2)
- 3. Place one spacer over the screw as per image 3. Use a finger to hold the screw in place.
- 4. Line up the same hole on the breakout board with the screw from the acrylic board whilst still using your finger to hold the screw in place. The spacer should be between the acrylic cover the breakout board. (Image 4)
- 5. Place the breakout board on top of the acrylic cover ensuring the screw has gone through the corner hole. (Image 5)
- 6. Screw a leg onto the end of the screw. Do not fully tighten. (Image 5)
- 7. Repeat for the remaining three corner holes ensuing that you do not tighten the legs fully. (Image 7)
- 8. Once all legs have been attached tighten the legs fully. Do this using your finger as shown in image 8.
- 9. Insert the pre-coded or un-coded BBC micro:bit into the edge connector. (Image 9)
- 10. Get coding!











7











