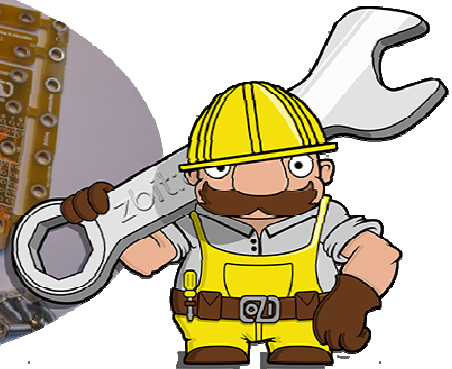
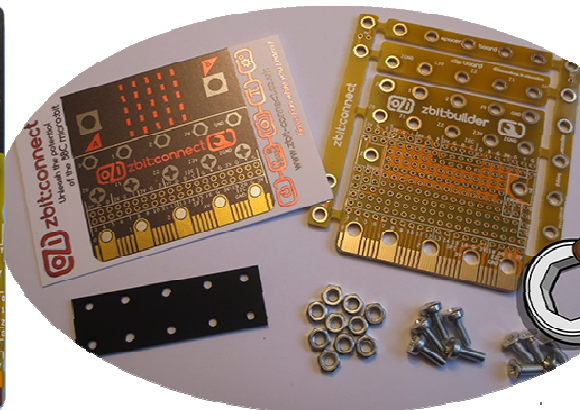
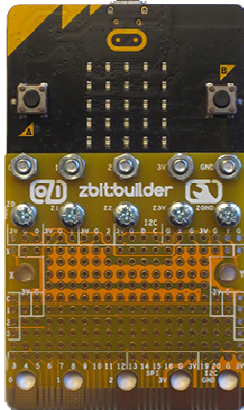




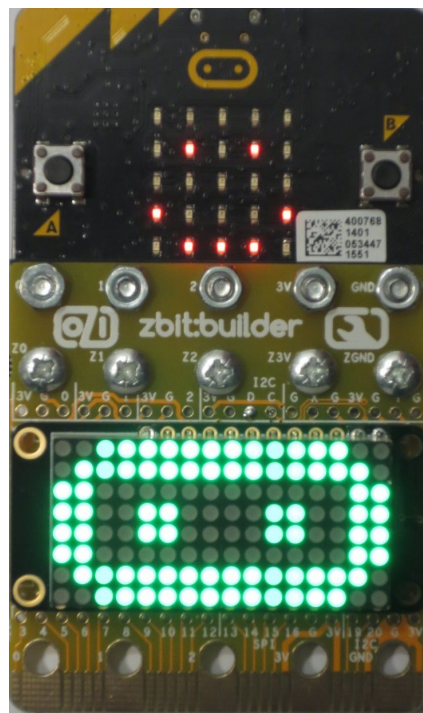
zbit:builder



for the BBC micro:bit



Example 2 – Adafruit 8x16 Dot Matrix FeatherWing on zbit:builder

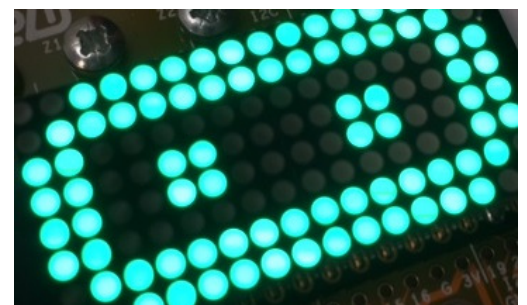


Only **4 solder link wires** are needed to attach the **Adafruit 8x16 Dot Matrix FeatherWing I2C Display** to your **BBC micro:bit** using **zbit:builder**! (3V, GND, P19 & P20)

Parts required

- 1 x zbit:builder
- 1 x zbit:connector (essential - see page 2 for details)
- 1 x Adafruit 16x8 Dot Matrix FeatherWing Product Code 3090*
- 4 x solder link wires
- 1 x BBC micro:bit !!!

* Product Code 3090 is the **Green** Display version. The display is also available in **White, Blue, Red** and **Yellow**. See www.adafruit.com



Assembly Instructions

**Ensure the Adafruit board is fitted to the front of zbit:builder.
The front of zbit:builder has the logos and text**

- Solder Headers to Adafruit Board

(See Adafruit instructions on www.adafruit.com for details)

Only the 4 header pins highlighted **need** to be soldered. The other header pins can also be soldered or left unsoldered

- Mount Adafruit board on zbit:builder in the **exact position** and **orientation** as shown in photo

- On the underside of zbit:builder solder the 4 header pins highlighted

other header pins can be soldered or left unsoldered

- Add 2 link wires as shown in photo to connect up 3V and GND

The Red wire is 3V and the Green wire is GND

- Add 2 link wires from SDA and SCL on Adafruit board to holes marked D and C on zbit:builder

The Adafruit 8x18 Dot Matrix FeatherWing Display is driven from the micro:bit by the **I2C Serial Bus**.

I2C Serial bus signal D or SDA (standing for **S**erial **D**Ata) is micro:bit GPIO **P20**

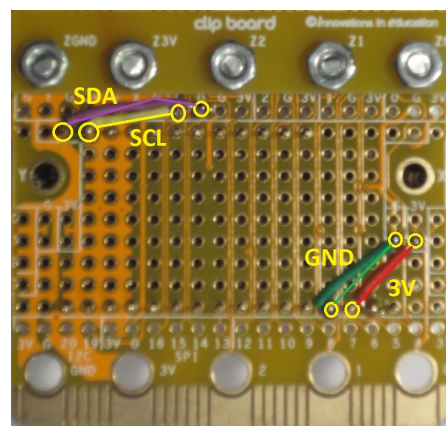
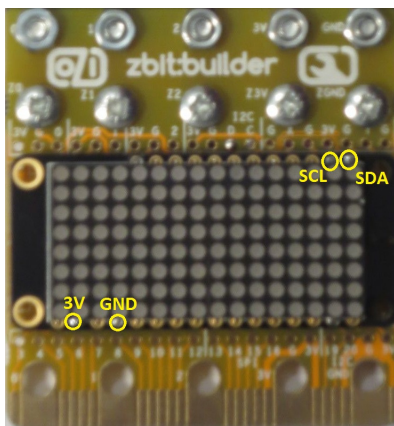
I2C Serial bus signal C or SCL (standing for **S**erial **C**Lock) is micro:bit GPIO **P19**

The Purple wire is SDA and the Yellow wire is SCL

- Attach zbit:builder to your BBC micro:bit

Since the Adafruit board in this example connects to micro:bit '**small pad**' signals **P19** and **P20** the use of the zbit:connector is **essential for reliable operation**.

- See www.zbit-connect.co.uk web site for example code



For this project **the use of the zbit:connector...**



...is essential as it connects using '**small pad**'

GPIO P19 & P20

See 'zbit:connect family guide' for more details

For updates follow **Twitter @ZbitConnect**

Have Fun while you Learn!



www.zbit-connect.co.uk