
Micro:Bit

An Educator's Guide

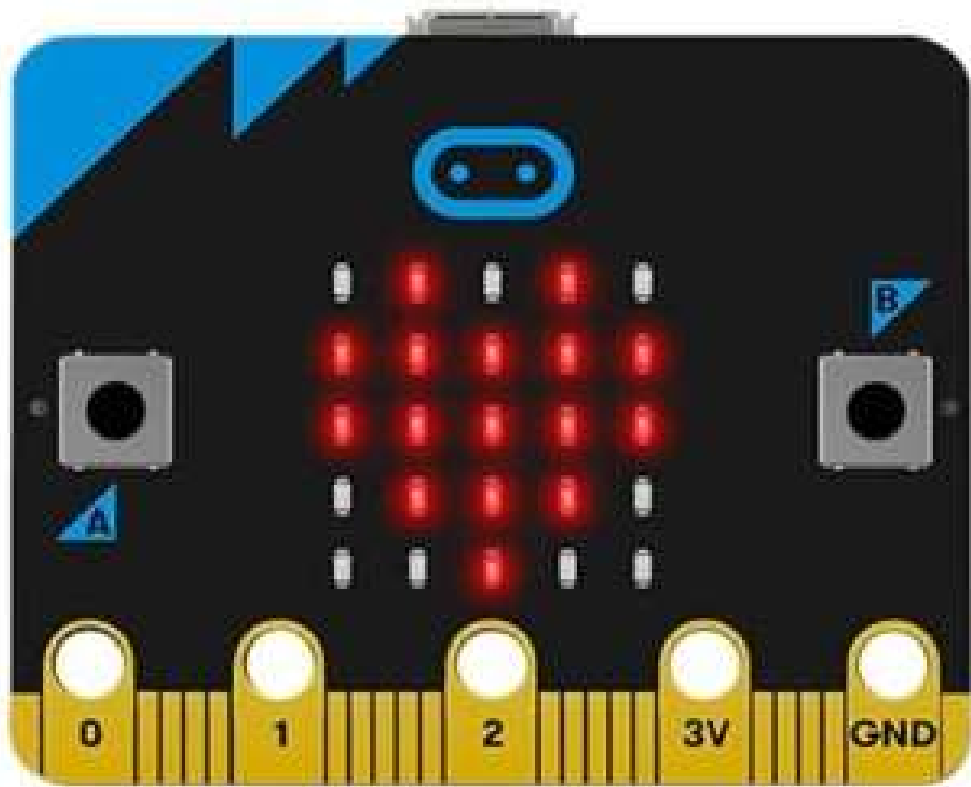
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- Introducing the Micro:Bit
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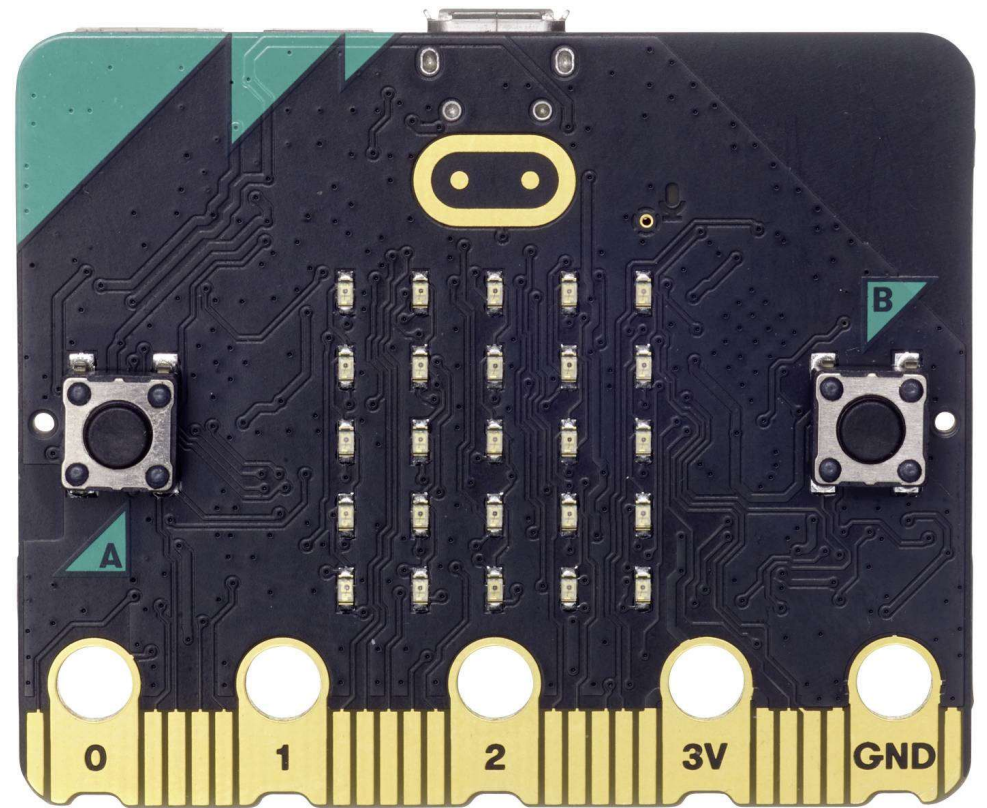
About the Micro:Bit

What is a Micro:Bit?

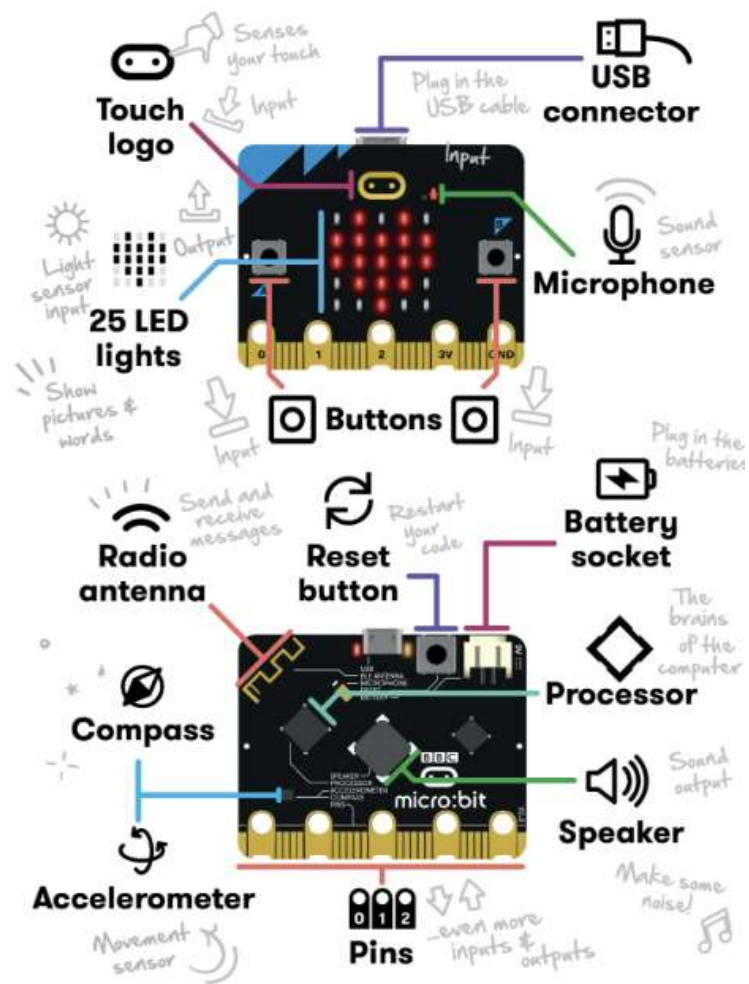
- Micro:Bits are small computers that can be programmed using a block-based language (similar to Scratch), JavaScript or Python.
- They have several inputs and outputs available – depending on the version number.



Version 1



Version 2



No Micro:Bit Required!

- BBC Micro:Bits are programmed using block code in Microsoft Makecode. This is available in-browser or as a desktop app.
- The software includes a simulator that can run the programs created without needing access to a Micro:Bit.
- The simulator also replicates some components

Using Makecode

Makecode for Micro:Bits

- <https://makecode.microbit.org>
- There is a desktop version of this software available for offline usage. However, it lacks some functionality.

Downloading to a Micro:Bit

- Need to connect and pair the device to the computer before downloading directly from Makecode.
- Can only hold one program at a time.

Live Data

- Need to connect the Micro:Bit to Makecode, download the program, and then you can see the data collection live.
- Can also use radio communications between Micro:Bits to send live data to the computer.

Micro:Bit Classroom

Micro:Bit Classroom

- Teachers can set up an online classroom. This allows you to see all pupils work, share a program with them, and edit their programs.
- <https://classroom.microbit.org/>
- These classroom sessions can be saved and re-opened at any time by the teacher.

Thank You

This presentation was bought to you by Aberystwyth University's Computer Science Department.

We offer workshops and further resources for all ages.

For more details, please visit:

<https://fbaps-outreach-hub.dcs.aber.ac.uk/CompSci/homePage.html>

Thank you