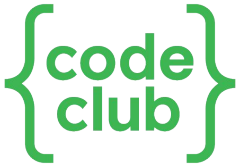
Software and hardware explainer



The following slides show the resources you need to run the pathways found on the Code Club website

https://codeclub.org/en/learn-to-code

Downloads

- Thonny is a Python IDE (integrated development environment) for beginners
- Raspberry Pi Pico firmware (installed via Thonny)
- The picozero library (available via PyPi in Thonny) — install details are found in the first project and in our Raspberry Pi Pico guide

Downloads

- Microsoft MakeCode (or access to online version)
- Scratch 3 desktop version
- Visual Studio Code, a free lightweight code editor from Microsoft that you can use to write code in almost any language, including C# with Unity.

Downloads

- Unity Editor, which can be installed from the Unity Hub.

This is a large download and install, so we recommend downloading it in advance. You can follow our Unity guide to install Unity Hub and the Unity Editor for your operating system. You will also need to download the Unity starter package of assets before starting.

Downloads

- Ollama is an open-source tool designed to run large language models (LLMs) on your Raspberry Pi, rather than over the internet.

Online Access to:

- Scratch, available here
- Raspberry Pi Code Editor, found here
- Adobe Firefly, available here
- Machine Learning for Kids, online here
- A web browser, such as Google Chrome, Safari, Firefox or Microsoft Edge

Online Access to:

- Microsoft MakeCode here (or downloaded and installed).
- Scratch Lab, available here.
- Teachable Machine, found here.
- Access to an LLM, such as Google Gemini or ChatGPT. Please read the information here before accessing an LLM.

code club

Hardware and other resources

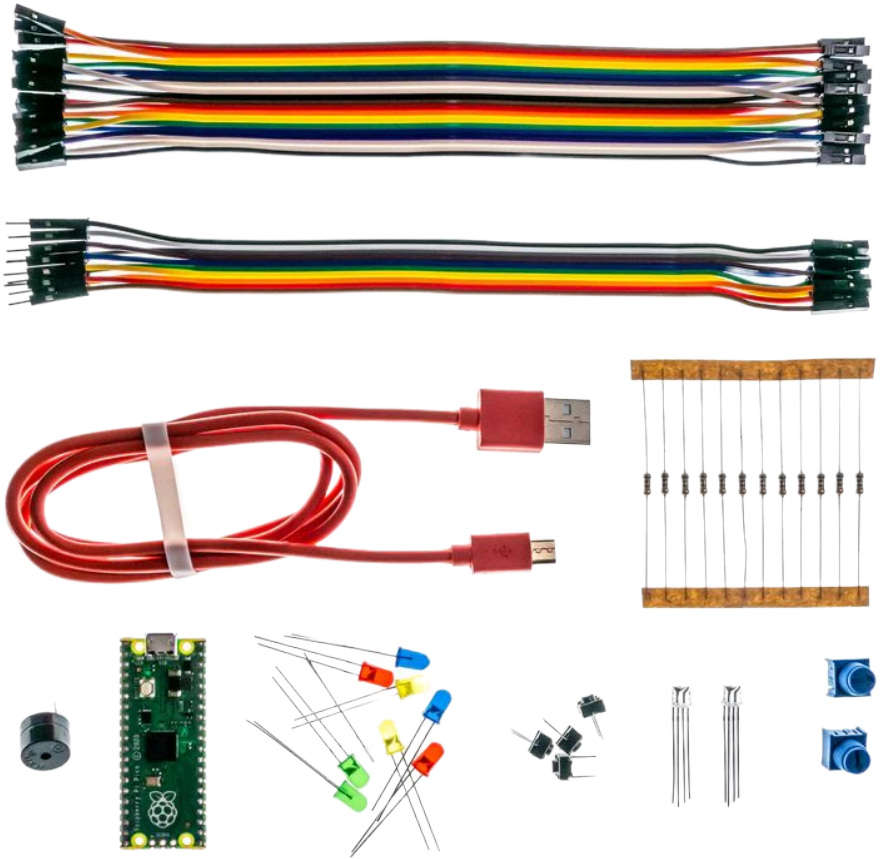
- USB port access
- Webcam
- Raspberry Pi Pico
- Raspberry Pi 4 or 5 and power supply
- Micro:Bit
- Micro:Bit battery pack and AAA batteries (x2 per Micro:bit)
- A micro SD card with at least 32GB storage

Hardware and other resources

- Microphone — inbuilt or accessory
- Various wires
- Single-colour LEDs, buzzers, and resistors
- Craft items including aluminium foil
- USB cable (USB A to microB)
- 5mm LEDS - 2x red, 2x blue, 2x yellow, 2x green, 1x white
- RGB LEDs
- Resistors

Hardware and other resources

- Piezo transducer (can be used as a buzzer)
- 10k rotary potentiometers
- Push buttons
- Pin-to-socket jumper wires
- Socket-to-socket jumper wires

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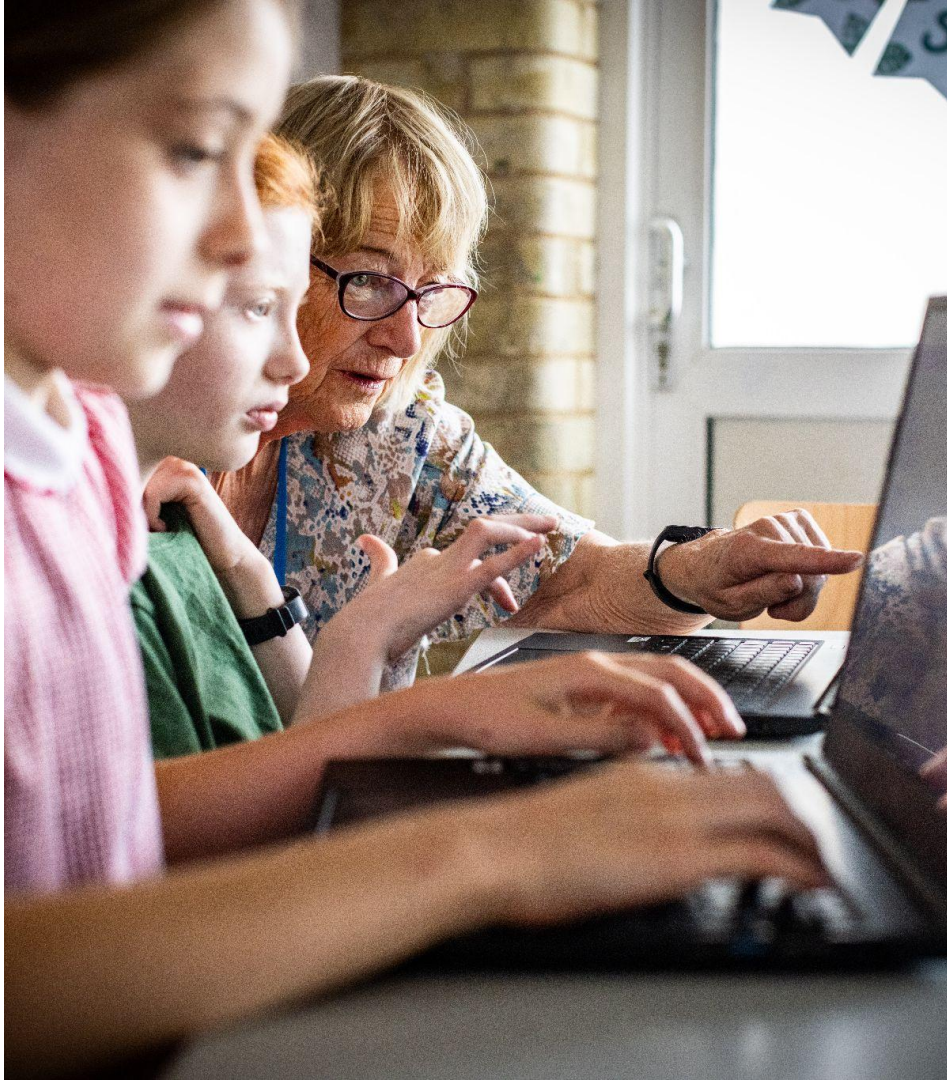

Thank you!