

Raspberry Pi Starter Kits

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Electronics & Prototyping

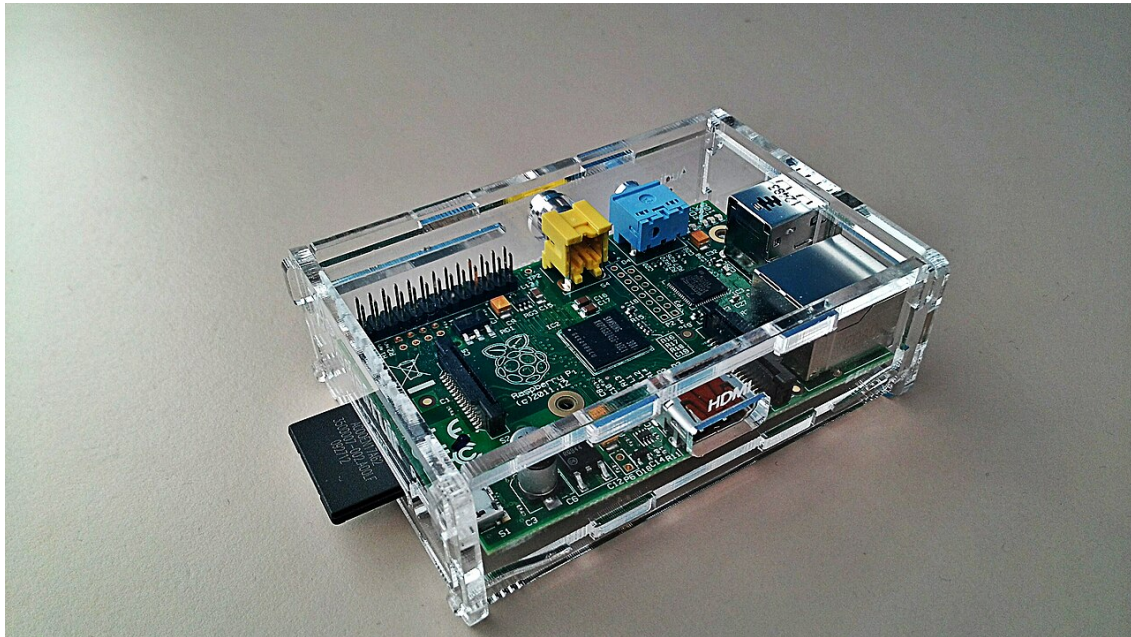


Photo: Russ Sanderlin — CC BY-SA 2.0 — via Wikimedia Commons (Raspberry_Pi_in_Adafruit_case_(8498072730).jpg)

A Raspberry Pi starter kit bundles the credit-card sized computer with a power supply, SD card, case, cables and sensors, ready for coding, IoT and media projects. It is the standard platform for teaching Python, physical computing and small server tasks.

Key Features

- Pi models with 2-8 GB RAM
- Pre-loaded or blank microSD cards
- Official power supplies and cases
- Heat sinks and cooling options
- Sensor and HAT expansion options

Typical Uses in the Workshop

- Teach Python and physical computing
- Build IoT sensors and home automation demos
- Run media centres and small servers
- Create robotics controllers and data loggers

Safe Operation

1. Flash the SD card with the official image
2. Connect screen, keyboard and power
3. Complete the first boot setup
4. Install packages with the package manager
5. Save projects in version control

SAFETY NOTES

- Use the correct power supply - underpowering corrupts the card
- Keep the board out of conducting surfaces
- Add a heatsink and good airflow for heavy loads
- Shut down properly before unplugging
- Store with the SD card removed

Maintenance & Consumables

- Back up the SD card regularly
- Update the operating system and packages
- Keep the case vents clear of dust
- Check power lead condition
- Keep the official documentation to hand

Specification & Buying Notes

Buy kits with the official power supply and an A2 microSD card - cheap cards fail. Choose RAM for the tasks: 4 GB suits most school coding and IoT use. Add a starter sensor kit as a companion.