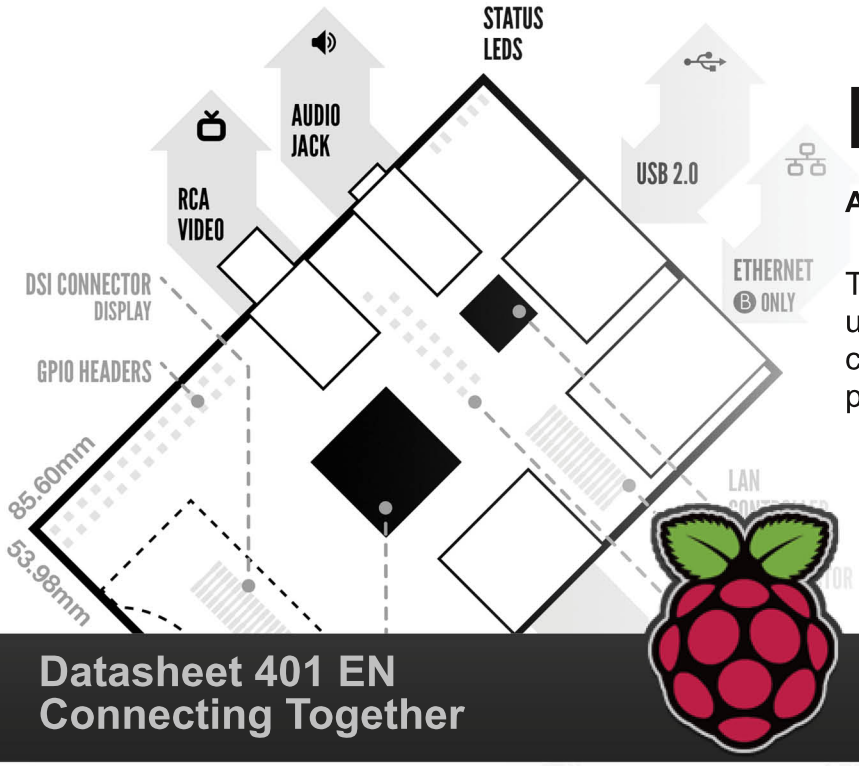


Raspberry Pi

An ARM GNU/Linux box for $25. Take a byte!

The Raspberry Pi Foundation produces an ultra-low-cost credit-card sized GNU/Linux computer for teaching computer programming to children.

Datasheet 401 EN
Connecting Together

Raspberry Pi
Getting Started

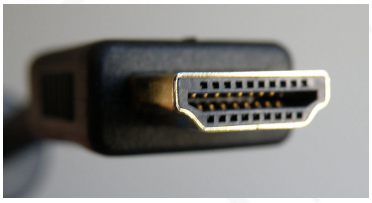
Micro USB Power

The unit uses a Micro-B USB connection to power itself (only the power pins are connected - so it will not transfer data over this connection).

A standard modern phone charger with a micro-B USB connector will do (micro not mini, they are different), but needs to produce at least 700mA at 5 volts.

Suitable mains adaptors will be available from the RasPi Shop and are recommended if you are unsure what to use.

HDMI



HD TVs and most LCD Monitors can be connected using a full-size 'male' HDMI cable.

Alternatively, an inexpensive adaptor if DVI is used. HDMI versions 1.3 and 1.4 are supported, and a version 1.4 cable is recommended. The RasPi outputs audio and video via HMDI, but does not support HDMI input.

Ethernet

This may be an Ethernet/LAN cable (standard RJ45 connector) or a USB WiFi adaptor.

The RasPi Ethernet port is 10/100 auto-sensing which means that it may be connected to a router or directly to another computer (without the need for a crossover cable).

USB 2.0

The Model A device has one USB 2.0 port which is provided by the BCM2835 chip.

The Model B device has two USB 2.0 ports which are provided by an integrated USB hub.

Keyboard and Mouse

Most standard USB keyboards and mice will work with the RasPi. Wireless keyboard/mice should also function, and only require a single USB port for an RF dongle.

In order to use a Bluetooth keyboard or mouse you would need to use a Bluetooth dongle, which again uses a single port. Remember that the Model A has a single USB port and the Model B only has two (a keyboard and mouse may use a USB port each)

Audio Jack

Audio is provided by a TRS connector 3.5 mm stereo jack.

Audio is also available via the HMDI output on HDMI audio capable devices.

RCA Composite Video

Most older TVs can be connected using Composite (a yellow-to-yellow cable) or via SCART (using a Composite to SCART adaptor).

PAL and NTSC TVs are supported. When using composite video, audio is available from a 3.5mm (1/8 inch) socket, and can be sent to your TV, to headphones, or to an amplifier.

To send audio your TV, you will need a cable which adapts from 3.5mm to double (red and white) RCA connectors.

SD Card

As the RasPi has no internal storage or built-in operating system it requires an SD-Card that is set up to boot the RasPi.

You can create your own preloaded card using any suitable SD card you have. Be sure to backup any existing data on the card.

Preloaded SD cards will be available from the Raspberry Pi Shop.

This guide will assume you have a preloaded SD card. A separate guide will be available at the RasPi launch with information about preloading SD cards.

Connecting Together

1) Plug the preloaded SD Card into the Pi.

2) Plug the USB keyboard and mouse into the Pi, perhaps via a USB Hub. Connect the Hub to power, if necessary.

3) Plug the video cable into the screen (TV) and into the Pi.

4) Plug your extras into the Pi (USB WiFi, Ethernet cable, hard drive etc.). This is where you may really need a USB Hub.

5) Ensure that your USB Hub (if any) and screen are working.

6) Plug the power source into the main socket.

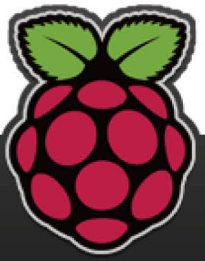
7) With your screen on, plug the other end of the power source into the Pi.

The Pi should now start to boot up and display messages on the screen.

Power On

It is always recommended to connect the MicroUSB Power to the unit last.

(while most connections can be made live, it is best practice to connect items such as displays/h/w pin connections with the power turned off). The RasPi may take a long time to boot when powered-on for the first time, so be patient!



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