

Currently available versions of the Raspberry Pi

The CanaKit for \$89 listed at the bottom of this list is an excellent choice if you are starting with nothing. A Bluetooth or USB keyboard and mouse and an HDMI monitor/TV are also nice, but once you have your Pi set up, you don't need those and can use a laptop to control your Pi.

Raspberry Pi 3 (nominal price \$35)

Best current version (more powerful CPU, Bluetooth, and Wireless LAN added)

- A 1.2GHz 64-bit quad-core ARMv8 CPU
- VideoCore IV 3D graphics core
- 1 GB RAM
- 802.11n Wireless LAN
- Bluetooth 4.1
- Bluetooth Low Energy (BLE)
- 4 USB 2.0 ports
- 1 100/10 Ethernet port
- Micro SD card slot (now push-pull rather than push-push)
- 40 GPIO pins
- 1 HDMI video port with sound
- 1 Combined 3.5mm audio jack and composite video
- 1 Camera interface (CSI)
- 1 Display interface (DSI)

Raspberry Pi 2 (nominal price \$35, better to buy the Raspberry Pi 3 instead)

- 900 MHz quad-core ARM Cortex-A7 CPU
- VideoCore IV 3D graphics processor
- 1 GB RAM
- 4 USB 2.0 ports
- 1 100/10 Ethernet port
- 1 Micro SD connector for up to 32 GB “disk” storage
- 40 GPIO pins
- 1 HDMI video port with sound
- 1 Composite video port with sound
- 1 CSI Camera connection for HD camera
- 1 DSI Display connection for display

Raspberry Pi B+ (nominal price \$25)

Useful for general applications that are not CPU or memory intensive

- 700 MHz ARMv6 processor
- 512 MB RAM
- (Other specs same as for Raspberry Pi 2)

Raspberry Pi A+ (nominal price \$20)

Useful for when extremely low power consumption, lighter weight, or smaller form factor is desired.

- 700 MHz ARMv6 processor
- 256 MB RAM
- 1 USB 2.0 port
- No Ethernet port
- (Other specs same as for Raspberry Pi 2)

Support items for any of the above Raspberry Pi versions

Essential support items:

5 VDC power adapter with micro USB connector. Should be able to supply at least than 2.5 A. (\$10)

Micro SD card with class 4 speed or better and capacity of at least 8 GB, loaded with operating system.
(SanDisk Extreme 32 GB, Class 10 for \$18)

Temporarily necessary items:

Wireless keyboard and mouse with USB adapter. (full size, \$30; miniature \$15)

Ethernet cable or wireless network adapter. (\$9)

Video connection to a HDMI, DMI, or VGA monitor:

Cable, HDMI-to-HDMI monitor or TV (\$6)

or cable, HDMI-to-DMI monitor (\$8)

or converter, HDMI-to-VGA analog monitor (\$25)

Additional useful items (check out CanaKit listed below for some of these):

8 MPixel Raspberry Pi Camera (\$25) and/or PiNoIR infra-red version of Pi Camera (\$25)
(old version was 5 MPixel)

Jumper cables (40 female-male + 40 female-female + 40 male-male, \$30)

2 mA LEDs with 1800-ohm resistors in series

circuit "breadboard"

stereo speakers if monitor is without built-in speakers

(These should have their own power source rather than being powered by a USB connection)

Plastic case (\$10)

Raspberry Pi User's Guide, 4th Edition (Not quite yet available, \$24)

Extension boards (there are many more than these):

Gertboard (\$36)

Gertduino (\$24)

Kit package:

CanaKit Raspberry Pi 3 Ultimate Starter Kit - 32 GB Edition (\$89)