Hardware Requirements $174 - $262

Note: Prices are what they were in 2020 and may be higher now due to chip shortages.

- 3 Raspberry Pi 3 B+ or higher (1GB RAM minimum) $126 (3 x $42)
    - Raspberry Pi 4 is an option, but keep in mind that they:
        - Run around $62 each currently
        - Require a mini-HDMI to HDMI cable and have two mini-HDMI outputs supporting up to 4K video (4096 × 2160 pixels) at 60 frames-per-second
        - Require a USB-C cable for input power connection instead of micro-USB
        - Have higher CPU, RAM, and Ethernet specs (see table below)
        - Have Bluetooth 5.0 with improved speed, range, and capacity; faster USB 3.0 ports; and unconstrained Gigabit ethernet capability
- 3 Raspberry Pi Case (optional, but recommended) $48 (3 x $16)
- 3 Raspberry Pi Power Supply (5V 2.5A) $30 (3 x $10)
- 3 Micro SD Card (8GB minimum) $18 (3 x $6)
    - You will need access to a computer that is capable of writing to an SD card directly or via an SD card reader such as this
- 3 Ethernet cables
- USB stick (to transfer configuration files between server and clients)
    - This is not necessary if you choose to upload/download files or use Github to store your server's configuration files.
- Wireless Router for use with the robot (optional; not needed if tethering) $40
- For initial setup and configuration changes only:
    - 1 HDMI-capable monitor
        - Raspberry Pi 7" Portable Touchscreen Monitor (optional)
    - 1 HDMI cable
    - 1 USB keyboard/mouse
- Wired ethernet port on Driver Station (or USB-to-ethernet adapter)
- Access to Internet via Wi-Fi at remote client locations
    - Static IP address at server site (optional)

Raspberry Pi Comparisons

Model	**CPU**	**RAM**	**Ethernet**	**Wi-Fi**
Raspberry Pi 3 Model B Rev 1.2	4 x 1.2GHz	1GB	100Mbps	802.11 b/g/n
Raspberry Pi 3 Model B Plus Rev 1.3	4 x 1.4GHz	1GB	300Mbps	802.11 b/g/n/ac
Raspberry Pi 4 Model B	4 x 1.5GHz	1-8GB	1Gbps	802.11 b/g/n/ac