**Preliminary requirements**

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| Name | Price | Qty | Link | Specification |
| Raspberry Pi 4 Model B 8GB RAM | ₹6,749.00 | 1 | https://www.factoryforward.com/product/raspberry-pi-4-model-b-8gb-ram/?src=raspberrypi | * Broadcom BCM2711, Quad core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz * 2GB, 4GB or 8GB LPDDR4-3200 SDRAM (depending on model) * 2.4 GHz and 5.0 GHz IEEE 802.11ac wireless, Bluetooth 5.0, BLE * Gigabit Ethernet * 2 USB 3.0 ports; 2 USB 2.0 ports. * Raspberry Pi standard 40 pin GPIO header (fully backwards compatible with previous boards) * 2 × micro-HDMI ports (up to 4kp60 supported) * 2-lane MIPI DSI display port * 2-lane MIPI CSI camera port * 4-pole stereo audio and composite video port * H.265 (4kp60 decode), H264 (1080p60 decode, 1080p30 encode) * OpenGL ES 3.1, Vulkan 1.0 * Micro-SD card slot for loading operating system and data storage * 5V DC via USB-C connector (minimum 3A\*) * 5V DC via GPIO header (minimum 3A\*) * Power over Ethernet (PoE) enabled (requires separate PoE HAT) * Operating temperature: 0 – 50 degrees C ambient |
| Buy Raspberry Pi 15.3W USB-C Power Supply | |  | | --- | | ₹793.00 | |  | | 1 | https://www.amazon.in/Raspberry-Pi-15-3W-USB-C-Supply/dp/B07XY8F3P7 | 1 USB type C power supply cale along eith adapter. |
| Official 4K Micro HDMI to Standard HDMI Cable for Raspberry Pi 4 | ₹385.00 | 1 | https://www.factoryforward.com/product/Micro-HDMI-to-standard-HDMI-cable-white-1M/?src=raspberrypi | 1 micro HDMI to HDMI cable for display |
| Raspberry Pi 4 Case Red/White (Official) | ₹349.00 | 1 | https://www.factoryforward.com/product/raspberry-pi-4-case-rw/?src=raspberrypi | Case for protection of the chip |
| Raspberry Pi High Quality Camera | ₹4,999.00 | 1 | https://www.factoryforward.com/product/raspberry-pi-hq-camera/?src=raspberrypi | * Sensor: Sony IMX477R stacked, back-illuminated sensor, 12.3 megapixels, 7.9 mm sensor diagonal, 1.55 μm × 1.55 μm pixel size * Output: RAW12/10/8, COMP8 * Back focus: Adjustable (12.5 mm–22.4 mm) * Lens standards: CS-mount, C-mount (C-CS adapter included) * IR cut filter: Integrated2 * Ribbon cable length: 200 mm * Tripod mount: 1/4”-20 * Compliance: FCC 47 CFR Part 15, Subpart B, Class B Digital Device, Electromagnetic Compatibility Directive (EMC) 2014/30/EU, Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU * Production lifetime: The Raspberry Pi High Quality Camera will remain in production until at least January 2026 |
| Pi Camera Cable, 3.28FT/100CM Long Extension Flex Ribbon Cable for Raspberry Pi, Black | $5.49  Top of Form | 1 | https://www.uctronics.com/pi-camera-cable-arducam-octoprint-octopi-webcam-monitor-3d-printer-3-28ft-100cm-long-extension-flex-ribbon-cable-for-raspberry-pi-black.html | * Natively compatible with all Raspberry Pi A&B series board, camera module and display. * 100cm/3.28ft length, 15 Pin 1.0mm Pitch interfaces, longer than the standard Rpi camera cable, especially useful when you don't want to place the camera near the Raspberry Pi. * Works great for a “stealth” black look, goes well with Raspberry Pi High Quality Camera |
| Adafruit STEMMA Soil Sensor - I2C Capacitive Moisture Sensor | $7.50 | 2 | https://www.adafruit.com/product/4026 | * Capacitive Moisture Sensor * Supply voltage 3.3V – 5V * Current consumption: 1.1mA @ 5V, 0.7mA @ 3.3V when idle, 14mA @ 5V, 7.8mA @ 3.3V when taking a measurement. * Operating temperature 0°C – 85°C |
| 200psi 160 psi DC 12V 80W Micro Electric Diaphragm 2in1 High Pressure Dual Water Pump for RV Boat | |  | | --- | | ₹1,030.00 | |  | | 1 | https://www.amazon.in/160-psi-Electric-Diaphragm-Pressure/dp/B07N4WBSYK/ref=sr\_1\_2?dchild=1&keywords=12+Volt+Water+Pump&qid=1629395105&sr=8-2 | * Flow Rate: 9 LITRES PER MIN Adjustable Speed: Yes Power Supply: 12V Total Head: 6 m Multi-purpose: home use for garden sprinklers, shower, water taps in the boat, caravan or motor |
| SanDisk Ultra microSD UHS-I Card 32GB, 120MB/s R | ₹ 459 | 1 | https://www.amazon.in/SanDisk-Ultra-microSD-UHS-I-120MB/dp/B08L5HMJVW/ref=sr\_1\_2?adgrpid=59664171595&dchild=1&ext\_vrnc=hi&gclid=CjwKCAjwvuGJBhB1EiwACU1AiYg-QsLY9EwyX245RZvKXCCr7J6bLgiNAL8xtldCpuw4sqrx0AesVxoC\_QMQAvD\_BwE&hvadid=398045494027&hvdev=c&hvlocphy=9061732&hvnetw=g&hvqmt=e&hvrand=14500218481941095945&hvtargid=kwd-301942481177&hydadcr=25457\_2176971&keywords=sd-card&qid=1631091971&refinements=p\_n\_feature\_browse-bin%3A1484867031&rnid=1484861031&s=electronics&sr=1-2 | * Ideal for Android smartphones and tablets, and MIL cameras * Up to 1TB to store even more hours of Full HD video * Up to 120MB/s transfer speeds let you move up to 1000 photos in a minute [32GB-1TB] * Load apps faster with A1-rated performance, Operating Temperature-13°F to 185°F * Class 10 for Full HD video recording and playback |