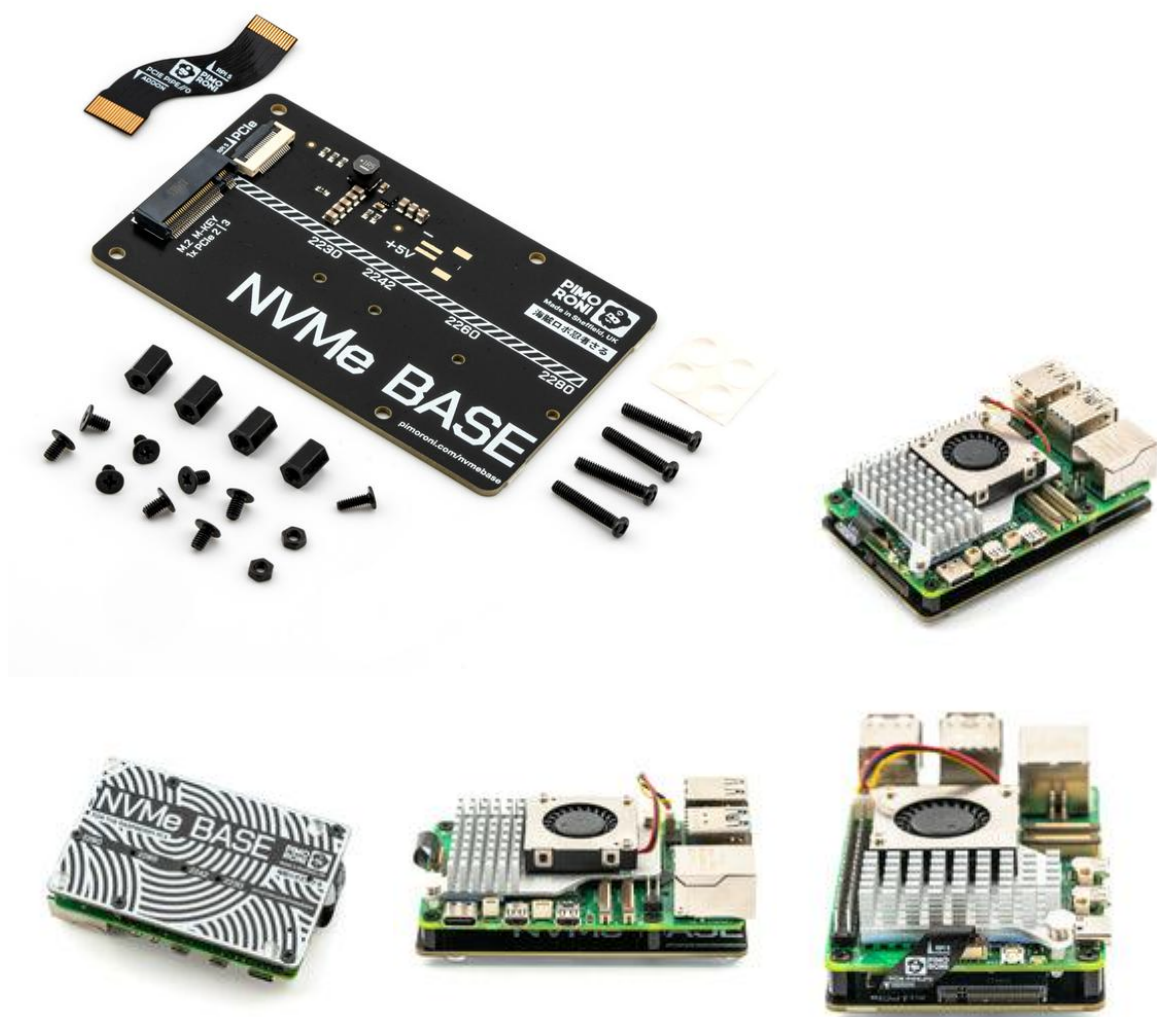


NVMe Base for Raspberry Pi 5

by [Pimoroni](#)



Add super-fast storage to your Raspberry Pi 5 allowing for lightning fast boots, NAS use, and snappy applications!

NVMe Base is a PCIe extension board for Raspberry Pi 5. Simply populate it with an M-key NVMe SSD (2230 to 2280 sizes supported) and mount it under your Pi for a compact and fast storage solution - It even comes with rubber feet!

It's the perfect solution for turning your Raspberry Pi 5 into a file server, media centre, reverse proxy, etc. - really any task that benefits from large amounts of fast storage, especially with random high operations per second (IOPS) workloads. In short it's a game changer!

NVMe Base follows the new "PIP" [design guidelines](#) provided by Raspberry Pi ensuring that it will be easy to use and be supported long term by updates to Raspberry Pi OS.

✦ If you're looking for a **smart aluminium case** to keep your NVMe setup safe and protected check out our new [NVMe Base Case!](#)

Kit Includes

Base Kit

- NVMe Base PCB with M.2 Slot (M-Key)
- 'PCIe Pipe' Flat Flex Cable
- 4x Rubber feet
- M2 bolt and 2x nuts for SSD mounting
- 4x 7mm M2.5 standoffs for base mounting
- 8x short M2.5 bolts for base mounting
- 4x long M2.5 bolts for 'pass-thru' mounting with a HAT

NVMe Base + SSD Bundle

We also offer the kit bundled with a 250GB, 500GB, 1000GB or 2000GB NVMe SSD (PCIe Gen 3 or better).

The Raspberry Pi 5 will run at PCIe 3.0 x 1 speeds at best, even though this mode is unsupported officially, so most drives are limited to around 700-800MB/s read and 350-450MB write at peak.

Due to the tides and vagaries of the SSD market, we will ship whichever drive offers the best value for decent specs. We can say that:

- It will have 250GB / 500GB / 1000GB / 2000GB (or better) capacity
- It will be rated by the manufacturer at PCIe Gen 3 or better speed
- We'll have personally tested the drive with the NVMe Base and it will be in the list below.
- It'll be backed by the usual Pimoroni guarantees and customer service.

Drive compatibility

We have tested NVMe Base with the following M.2 NVMe drives successfully. We have usually tested one drive from one batch, so this is not comprehensive, or an 'Approved' list, but it's a good guide for drives to seek out:

- AData Legend 700
- AData Legend 800
- AData XPG SX8200 Pro
- Axe Memory Generic Drive
- Crucial P2 M.2
- Crucial P3 M.2
- Crucial P3 Plus M.2

- Inland PCIe NVMe SSD
- Kingston KC3000
- Kioxia Exceria NVMe SSD
- Kioxia Exceria G2 NVMe SSD
- Lexar NM620
- Lexar NM710
- Netac NV2000 NVMe SSD
- Netac NV3000 NVMe SSD
- Origin Inception TLC830 Pro NVMe
- Sabrent Rocket 4.0
- Sabrent Rocket Nano
- Samsung 980
- Samsung 980 Pro (500GB/1TB)
- Team MP33
- Western Digital Black SN750 **SE** (Phison Controller)

' Maybe' List. Works with quirks/not ideal.

These drives either needed extra power, were a bit quirky when we tested them or we've had reports of them being problematic. It may just be the drive we had, but they're probably best avoided.

- Kioxia BG4 2230. Performance very patchy. Runs at quite a high temp.
- Patriot P300 - These drives have various controllers, some of which seem to be incompatible at this time.
- Patriot P310 - These drives have various controllers, some of which seem to be incompatible at this time.
- PNY CS1030 (250GB). Reports of this size not working.
- Samsung 970 EVO Plus. Runs at a higher temp. Some user reports of problems under heavy load or not showing up on boot.
- Samsung 980 Pro (250GB). Reports of this size not working.
- WD Blue SN550. Our fresh unit could be used as storage but could not be booted from.
- WD Red SN700. Slow to boot first time, but worked and booted OK.
- WD SN740. Our fresh unit worked well. YMMV.
- WD Black SN770. Our fresh unit worked fine. YMMV.

'Avoid' List. We've had problems or reports of problems.

- KingSpec NX Series
- Kingston OM8SEP4256Q-A0
- Transcend 110Q (TS500GMTE110Q)
- WD Green/Blue/Red/Black not in the above list. Variable results or not working because of quirks of a SanDisk controller/firmware. Our SN350 and SN570 prevented the RPi 5 from booting at all especially.

Otherwise most M.2 NVMe drive (Not SATA!) you have lying around should work fine.