



Raspberry Pi 5 case with M.2 NVME SSD HAT support, custom top and power button (UPDATED v1.3) pi5 rpi5



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[VIEW IN BROWSER](#)

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Summary

I designed this Pi 5 case, following my Pi 4 case. The top and middle frame are unchanged. (about 4-5h print)

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Tags: [case](#) [hat](#) [fusion360](#) [free](#) [raspberrypi](#)
[rasberrypicase](#) [ssd](#) [waveshare](#) [header](#) [nvme](#) [m2](#)
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First of all, thank you for clicking on and maybe printing my model :D

Pi 5 case, following the design of [my Pi 4 case](#).

The top and mid-frame remain unchanged.

For FDM printing i **recommend PLA** or some other stiff filament.

!!!

Official M.2 HAT+ wont fit standard case because of long standoffs and big screws...

Official M.2 HAT+ will maybe fit +5mm, you will need to design your own topper or screw in pi from the bottom as i made screws a possibility with +5mm case.

Official Active Cooler fits both models.

I bought my waveshare m.2 nvme hat from [here](#) (AliExpress) and this is [official site](#).

What you need to print:

- Case body
- Case Top
- Mid Frame (**No mid-frame if you use M.2 NVME HAT**)
- Button (you can choose to not print it)

With or without support?

- If you have **SLA/RESIN** printer print no support case.
- If you have **FDM/FILLAMENT** printer use case with support.

Which mid-frame to choose:

- Side:
 - full fan clearance
 - GPIO or camera ports covered
- Middle:
 - fan partially covered
- Side-middle:
 - i think nothing should be covered (only PCIe port will be)
- Side-middle and Fan Pins Offset (**RECOMMENDED**):
 - all clear (looks like octopus)
- **No mid-frame if you use M.2 HAT (if you want you can print [this GPIO cover](#) for the pins to leave your fingers unscarred :D)**

What you need to finish print:

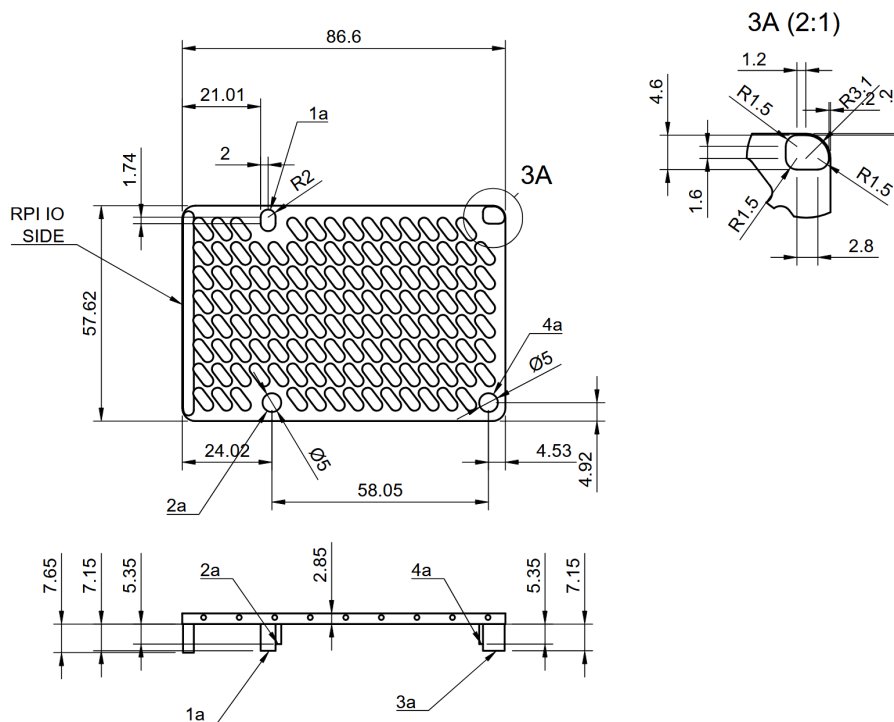
- Pliers/side cutters to pop out supports (if you printed case with supports)

RPI5 doesn't want to boot with SSD?

1. Did you set boot order? (follow [this tutorial from Jeff Geerling](#) if you didn't)
 - Edit the EEPROM on the Raspberry Pi 5.
`sudo rpi-eeprom-config --edit`
 - Change the BOOT_ORDER line to the following:
`BOOT_ORDER=0xf416`
 - Add the following line if using a non-HAT+ adapter (**If you are using waveshare M.2 NVME HAT+ you don't do this**):
`PCIE_PROBE=1`
 - Press Ctrl-O, then enter, to write the change to the file.
Press Ctrl-X to exit nano (the editor).
2. If it still doesn't want to boot try re-seating the PCIe connector.
3. In the end if it doesn't work try updating bios/firmware on your PI5 (i had that problem)
 - Boot into OS with sd card
 - Run `sudo apt update` followed by `sudo apt install rpi-update` to get utility.
 - Run `sudo rpi-update` to run the utility, and follow the onscreen instructions.
 - Reboot and that's it ([this is the tutorial i used for reference](#))

Custom topper dimensions:

- This one contains **poles** for **Waveshare m.2 NVMe hat** and for **+5mm case** other dimensions are the same as original.

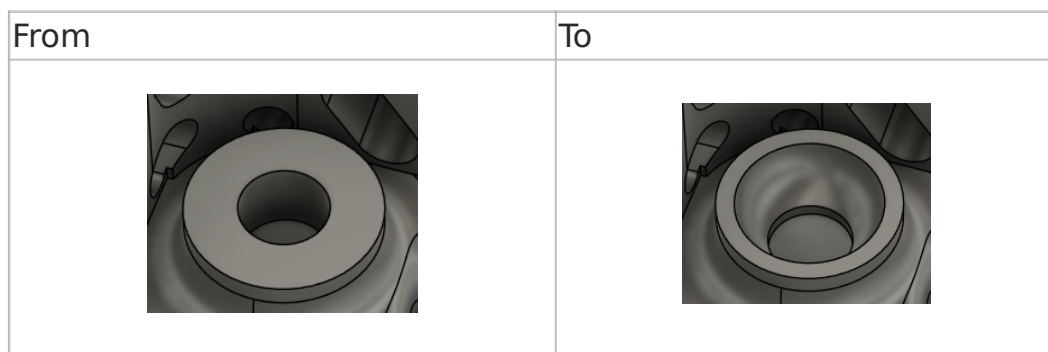


Print settings:

- Speed: any
- Infill: 10-100%
- Number of walls: 2-4
- Retraction: Tune it <3 (you can do it with this)

How to change case (v1.1 and lower) to fit **waveshare M.2 NVME HAT+**:

1. Get phillips (+) screwdriver (i used PH2)
2. Rotate the screwdriver into the two holes adjacent to the side ports of the Raspberry Pi until enough material is ground away to accommodate the screws for mounting the HAT onto the Pi.



Change log:

- V1
 - Initial release (waiting for PI5 to arrive)
- V1.1
 - Holes for fan on the case body.
 - I got RPI5 finally so i could test the case, the last design fits my pi with cooler perfectly!
 - I put old files into folder called LEGACY (maybe faulty).
- V1.2
 - SSD support (**waveshare M.2 NVME HAT+**)
 - Changes on mounting on case
 - New tops for SSD support (blank, with holes and fusion 360 file)
 - Tutorial how to change v1.1 and lower to accommodate **waveshare M.2 NVME HAT+**
 - Added wall mount
 - Tutorial for SSD troubleshooting
- V1.3
 - added +5mm case design
 - new topper for waveshare hat for +5mm case
 - files to change case +5mm

Have fun printing! (and ask if you need any help)

If you wish you can [donate on my ko-fi page](#)

Model files



Case

3 files



pi-5-case-body-with-support-latest-v12.3mf



pi-5-case-body-with-no-support-latest-v12.3mf



wall-mount-latest-v12.3mf

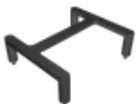


Mid frame holder

4 files



pi-4-and-5-holder-side-latest-v11.3mf



pi-4-and-5-holder-side-middle-latest-v11.3mf



pi-4-and-5-holder-side-middle-and-fan-pins-offset-latest-v11.3mf



pi-4-and-5-holder-middle-latest-v11.3mf



Top

8 files



pi-4-and-5-case-top-added-in-v11.3mf



pi-4-and-5-case-top-added-in-v13.3mf



pi5-top-for-ssd-hat-with-holes-added-in-v12.3mf

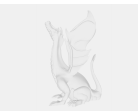


pi5-top-for-ssd-hat-blank-added-in-v12.3mf



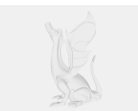
pi-4-and-5-case-top-custom-blank-added-in-v11.step

☐ step file



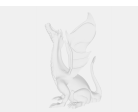
pi-4-and-5-case-top-custom-blank-added-in-v11.f3d

☐ Fusion360 file



pi5-top-for-ssd-hat-blank-added-in-v12.f3d

☐ Fusion360 file



pi-4-and-5-case-top-added-in-v13.f3d

☐ Fusion360 file



Button

1 file



pi-5-case-button-latest-v11.3mf



v1.3 +5mm Case, topper for NVME SSD-s (with screw holes M3)

4 files



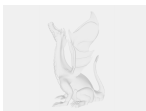
case-5mm-rpi5-latest-v13.3mf



top-5mm-waveshare-gpio-exposed-rpi5-latest-v13.3mf



top-5mm-waveshare-gpio-snaped-off-rpi5-latest-v13.3mf



support-case-5mm-latest-v13.f3d

☐ Fusion360 file

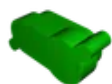


V1 (maybe faulty, legacy)

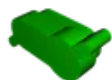
5 files



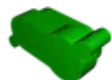
pi-5-case-body-with-no-support-v1.3mf



pi-5-case-button-blank-v1.3mf



pi-5-case-button-blank-big-tolerance-v1.3mf



pi-5-case-button-v1.3mf



pi-5-case-body-with-support-v1.3mf



v1.1 (legacy)

2 files



pi-5-case-body-with-no-support-v11-legacy.3mf



pi-5-case-body-with-support-v11-legacy.3mf

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