



Modular Snap Together Raspberry Pi 2B/3B/3B+/4 Case w/ OLED & Fan Options



Sneaks

[VIEW IN BROWSER](#)

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Summary

This fully customizable Raspberry Pi 2B/3B/3BP/4 case snaps together without the need for any hardware.



N/A



12 pcs



0.20 mm



0.40 mm



1



N/A



Prusa
MK3/S/S+

[Hobby & Makers](#) > [Electronics](#)

Tags: [case](#) [raspberrypi](#) [pi](#) [raspberrypi](#) [raspberrypicase](#) [3b](#) [pi3](#) [pi4](#) [raspberrypi4](#) [raspi](#) [pie](#) [raspberrypi3](#) [raspi4](#) [raspberrypihousing](#) [raspi3](#) [raspberrypi4bcase](#) [raspicase](#) [3bplus](#) [pi2b](#) [raspberrypie](#)

Compatibility: This case design is compatible with Raspberry Pi's 2B/3B/3B+/4. It may be compatible with other models, however, these were the ones I was personally able to test it on.

Two Top Depths: (01/06/2022) The top half is now available in two different depths. There is a 3mm depth difference between DEEP and STANDARD. The DEEP option was added for more clearance when using the OLED and Fan Module and also to increase clearance for Heat Sink users. When picking your files to print, make sure to pay attention to match “STD” or “DEEP” in their filenames. ie If you are printing a DEEP top with Side Rails, make sure to select DEEP rails. Bottoms fit both top sizes, only the side mounting rails are affected by different tops.

No Hardware: This design does not use any hardware and all parts are “Snap-Fit.” There are small tabs that flex a tiny bit to allow a lip to snap into a groove.

Mounting: There are 3 variations of the cases: No Mounting Options, VESA 75 Mount, and a Side Rail Case. The Side Rail case is designed so that users can easily make their own mounting option for the case. Included in the files is “__ss_rail_1_02.STEP” which can be used to design your own mount for the Side Rail Design.

Modules: Included in the files is “module_1_01_blank.STEP” which can be used to make your own custom modules.

Printing / Support: I have Uploaded GCODE (All Sets) for Prusa MK3S and MINI. These files do not require any support. In Prusa Slicer .20mm Layer Thickness on QUALITY prints out a very nice case.

Tips:

- This is a “Snap-Fit” design and it uses small FRAGILE tabs to lock together; be gentle.
- If you need to open the case back up after snapping together, remove the SD card, stick a mid-sized flat head screwdriver between top/bottom at SD slot, and twist gently. Slowly work your way around to open back up.
- If you need to remove a module, there is a release slot on the back of the case (Small rectangle). Stick a small flat head screwdriver in and gently pry up. This will raise the module high enough to access the recessed slot you can get a thumbnail or screwdriver in to pull off the module.
- Did I mention BE GENTLE? Seriously, I've broken a lot of these by pulling too hard or being impatient. A few seconds of patience will save you 4 hours waiting for another printed part.

File Structure: I have separated the different versions into STL sets. The file names reference the model and mounting style. The modules are available in both a set and individually.

Naming Convention: There are a lot of parts! I did my best to identify each part's features in the filenames. Here is a breakdown:

- STD: Standard Height / Depth
- DEEP: 3mm Higher / Deeper than Standard
- 3BP: Compatible with Raspberry Pi 2B/3B/3B+
- RP4 / 4: Compatible with Raspberry Pi 4
- SS / SIDE / RAIL: Side Mounting Rail Mounting
- VESA: 75x75 Vesa Mounting
- NO MOUNT: Case Doesn't Offer Mounting
- TOP: Top Portion of Case
- BOTTOM: Bottom Portion of Case
- SET: Contains Parts for Full Case.
- MK3S: For Prusa MK3S Printer
- MINI: For Prusa MINI

Fan Module: The fan module uses a 40x40x10mm fan. I have tried tons of manufacturers fans and they all snap in the module perfectly. The trick is to gently insert the fan straight on (not crooked). Getting it back out is a bit trickier, in fact, I typically break the tabs trying to get the fan back out. This is the limitation of making a Snap-In module with a 3D printer that uses layers. It is recommended to use the DEEP top for fan and OLED modules.

OLED: I have a document on how I got the OLED wired and what software was installed. The file is a very rough outline; if anyone wants it it is available [here](#). It is a work in progress and I will keep updating. It is recommended to use the DEEP top for fan and OLED modules.

Rails: I have uploaded rails for several mounting options including a Prusa MK3S rail, Mini Rail, and a Left/Right Wall Mount rail. The Prusa MK3S rail uses the two open M3 screw holes directly above the control box. There are also two rails for the Prusa Mini. One Rail is designed to mount your Raspi on the 3030 behind the controller, and one is designed to mount your Raspi on the 3030 in the Rear Left corner. Both of these rails can be used to mount your Raspi in many other places too! I have also included M3 Roll Nuts in the design The Mount behind the Mini Controller Requires 2x M3x12mm flathead screws and 2x M3 nuts. The Mini Rear Left Mount Requires 2x M3x18mm flathead screws and 2x M3 nuts.

Rail Update: (01/06/2022) There are now two widths of rails STANDARD and DEEP. A new top size was added, and the DEEP rail is needed when using this new top. Additionally, all rails lock into place now. When putting the Pi on the rails, if you give a little extra force at the end it should pop into a locked position.

**** Disclaimer:** This design requires a perfect printer setup. The amount of material on the tabs is so small, that the slightest layer adhesion issue and the tab will break. I have printed and tested hundreds of these on my Prusa MK3S/Mini Printer's and the design is solid. If you are having issues with the tabs breaking, please look at your print settings.

Print Files (.gcode)

[↓ DOWNLOAD ALL FILES](#)

MINI GCODE

6 files



noMount_2_3b_3bp_set_0.2mm_PLA_MIN 9.6 MB

updated 7. 1. 2022

🕒 4.98 hrs ⚙️ 0.20 mm 📏 0.40 mm 🌀 PLA ⚖️ 50.00 g 🏠 Prusa
MINI /
MINI+

📁 Raspberry Pi 2/3B/3BP / No Mount / MINI / STANDARD



noMount_4_set_0.2mm_PLA_MINI_5h6m_ 9.8 MB

updated 7. 1. 2022

🕒 5.10 hrs ⚙️ 0.20 mm 📏 0.40 mm 🌀 PLA ⚖️ 51.00 g 🏠 Prusa
MINI /
MINI+

📁 Raspberry Pi 4 / No Mount / MINI / STANDARD



vesaMount_2_3b_3bp_set_0.2mm_PLA_M 10.4 MB

updated 7. 1. 2022

🕒 5.21 hrs ⚙️ 0.20 mm 📏 0.40 mm 🌀 PLA ⚖️ 52.00 g 🏠 Prusa
MINI /
MINI+

📁 Raspberry Pi 2/3B/3BP / VESA Mount / MINI / STANDARD



vesaMount_4_set_0.2mm_PLA_MINI_5h2 10.7 MB

updated 7. 1. 2022

🕒 5.33 hrs ⚙️ 0.20 mm 📏 0.40 mm 🌀 PLA ⚖️ 53.00 g 🏠 Prusa
MINI /
MINI+

📁 Raspberry Pi 4 / VESA Mount / MINI / STANDARD





sideMount_2_3B_3BP_set_0.2mm_PLA_M 22.1 MB

updated 7. 1. 2022

⌚ 8.71 hrs ≡ 0.20 mm ⚙ 0.40 mm ⚙ PLA

⚖ 85.00 g 🖨 Prusa
MINI /
MINI+

📁 Raspberry Pi 2/3B/3BP / Side Rail Mount / MINI / STANDARD



sideMount_4_set_0.2mm_PLA_MINI_8h5 22.6 MB

updated 7. 1. 2022

⌚ 8.87 hrs ≡ 0.20 mm ⚙ 0.40 mm ⚙ PLA

⚖ 86.00 g 🖨 Prusa
MINI /
MINI+

📁 Raspberry Pi 4 / Side Rail Mount / MINI / STANDARD



MK3S GCODE

6 files



noMount_2_3b_3bp_set_0.2mm_PLA_MK3S 9.8 MB

updated 7. 1. 2022

⌚ 5.14 hrs ≡ 0.20 mm ⚙ 0.40 mm ⚙ PLA

⚖ 50.00 g 🖨 Prusa
MK3/S/S+

📁 Raspberry Pi 2/3B/3BP / No Mount / MK3S / STANDARD



noMount_4_set_0.2mm_PLA_MK3S_5h18 10.1 MB

updated 7. 1. 2022

⌚ 5.31 hrs ≡ 0.20 mm ⚙ 0.40 mm ⚙ PLA

⚖ 51.00 g 🖨 Prusa
MK3/S/S+

📁 Raspberry Pi 4 / No Mount / MK3S / STANDARD



vesaMount_2_3b_3bp_set_0.2mm_PLA_M 10.7 MB

updated 7. 1. 2022

⌚ 5.44 hrs ≡ 0.20 mm ⚙ 0.40 mm ⚙ PLA

⚖ 52.00 g 🖨 Prusa
MK3/S/S+

📁 Raspberry Pi 2/3B/3BP / VESA Mount / MK3S / STANDARD



vesaMount_4_set_0.2mm_PLA_MK3S_5h18 10.8 MB

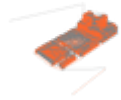
updated 7. 1. 2022

⌚ 5.52 hrs ≡ 0.20 mm ⚙ 0.40 mm ⚙ PLA

⚖ 53.00 g 🖨 Prusa
MK3/S/S+

📁 Raspberry Pi 4 / VESA Mount / MK3S / STANDARD

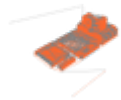




sideMount_2_3B_3BP_set_0.2mm_PLA_M 22.5 MB

updated 7. 1. 2022

🕒 9.06 hrs ⚙️ 0.20 mm 📏 0.40 mm 🌀 PLA ⚖️ 85.00 g 🏢 Prusa MK3/S/S+
📁 Raspberry Pi 2/3B/3BP / Side Rail Mount / MK3S / STANDARD



sideMount_4_set_0.2mm_PLA_MK3S_9h9 22.8 MB

updated 7. 1. 2022

🕒 9.15 hrs ⚙️ 0.20 mm 📏 0.40 mm 🌀 PLA ⚖️ 86.00 g 🏢 Prusa MK3/S/S+
📁 Raspberry Pi 4 / Side Rail Mount / MK3S / STANDARD



Model Files (.stl, .3mf, .obj, .amf)

[↓ DOWNLOAD ALL FILES](#)

3MF_MK3S

6 files



noMount_2_3b_3bp_set_MK3S_STD.3mf 636.8 KB

updated 7. 1. 2022

📁 Raspi 2/3B/3B+ / No Mount / 3MF MK3S / STANDARD



noMount_4_set_MK3S_STD.3mf 609.9 KB

updated 7. 1. 2022

📁 Raspi 4 / No Mount / 3MF MK3S / STANDARD



sideMount_2_3B_3BP_set_MK3S_STD.3m 745.1 KB

updated 7. 1. 2022

📁 Raspi 2/3B/3B+ / Side Mount / 3MF MK3S / STANDARD



sideMount_4_set_MK3S_STD.3mf 719.4 KB

updated 7. 1. 2022

📁 Raspi 4 / Side Mount / 3MF MK3S / STANDARD



vesaMount_2_3b_3bp_set_MK3S_STD.3m 652.2 KB

updated 7. 1. 2022

📁 Raspi 2/3B/3B+ / VESAS / 3MF MK3S / STANDARD





vesaMount_4_set_MK3S_STD.3mf

updated 7. 1. 2022

📄 Raspi 4 / VESA / 3MF MK3S / STANDARD

626.5 KB



RASPI_4_STL_SETS

3 files



noMount_4_set_STD.stl

updated 7. 1. 2022

📄 Basic Case for Raspi 2/3B/3BP (No Mounting Options) / STANDARD

2.5 MB



vesaMount_4_set_STD.stl

updated 7. 1. 2022

📄 Vesa Mount Set for Raspi 4 / STANDARD

2.5 MB



sideMount_4_set_STD.stl

updated 7. 1. 2022

📄 Side Mount Set for Raspi 4 / STANDARD

3.0 MB



RASPI_2_3B_3BP_STL_SETS

3 files



noMount_2_3b_3bp_set_STD.stl

updated 7. 1. 2022

📄 Basic Case for Raspi 2/3B/3BP (No Mounting Options) / STANDARD

2.6 MB



vesaMount_2_3b_3bp_set_STD.stl

updated 7. 1. 2022

📄 Vesa Mount Set for Raspi 2/3B/3BP / STANDARD

2.7 MB



sideMount_2_3B_3BP_set_STD.stl

updated 7. 1. 2022

📄 Side Mount Set for Raspi 2/3B/3BP / STANDARD

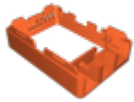
3.1 MB





TOP_STLS_STANDARD

4 files



__raspi_top_1_05-RP3BP_STD.stl

updated 7. 1. 2022

☐ Raspi 2/3B/3B+ / No Mount or VESA / Top - STANDARD

2.0 MB

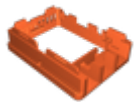


__raspi_top_1_05-RP4_STD.stl

updated 7. 1. 2022

☐ Raspi 4 / No Mount or VESA / Top - STANDARD

1.9 MB

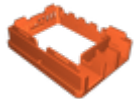


__raspi_top_1_05-SS_3BP_STD.stl

updated 7. 1. 2022

☐ Raspi 2/3B/3B+ / Side Mount / Top - STANDARD

2.1 MB



__raspi_top_1_05-SS_4_STD.stl

updated 7. 1. 2022

☐ Raspi 4 / Side Mount / Top - STANDARD

2.0 MB



TOP_STLS_DEEP

4 files



__raspi_top_1_06A-3BP_DEEP.STL

updated 6. 1. 2022

☐ Raspi 2/3B/3B+ / No Mount or VESA / Top - DEEP

2.0 MB

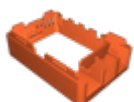


__raspi_top_1_06A-SS_3BP_DEEP.STL

updated 6. 1. 2022

☐ Raspi 2/3B/3B+ / Side Mount / Top - DEEP

2.1 MB



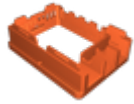
__raspi_top_1_06A-RP4_DEEP.STL

updated 6. 1. 2022

☐ Raspi 4 / No Mount or VESA / Top - DEEP

2.0 MB





__raspi_top_1_06A-SS_4_DEEP.STL

updated 6. 1. 2022

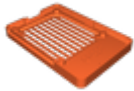
☐ Raspi 4 / Side Mount / Top - DEEP

2.1 MB



BOTTOM_STLS_INDIVIDUAL

6 files

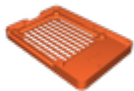


__raspi_bottom__1_05-RP3BP.STL

updated 6. 1. 2022

☐ Raspi 2/3B/3B+ / No Mount / Bottom

390.1 KB

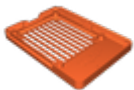


__raspi_bottom__1_05-RP4.STL

updated 6. 1. 2022

☐ Raspi 4 / No Mount / Bottom

336.1 KB

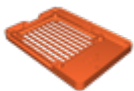


__raspi_bottom__1_05-SS_3BP.STL

updated 6. 1. 2022

☐ Raspi 2/3B/3B+ / Side Mount / Bottom

504.7 KB

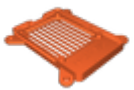


__raspi_bottom__1_05-SS_4.STL

updated 6. 1. 2022

☐ Raspi 4 / Side Mount / Bottom

448.8 KB

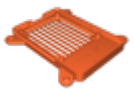


__raspi_bottom__1_05-RP3BP V75.STL

updated 6. 1. 2022

☐ Raspi 2/3B/3B+ / VESA / Bottom

488.4 KB



__raspi_bottom__1_05-RP4 V75.STL

updated 6. 1. 2022

☐ Raspi 4 / VESA / Bottom

433.6 KB



MODULES_STL

12 files

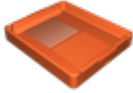


module_set.stl

updated 6. 1. 2022

☐ Set of all Current Snap In Modules

2.4 MB



__raspi_module_1_01-VENTED_TOP.STL

updated 12. 2. 2022

☐ Simple Vented Module

200.6 KB

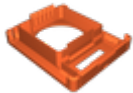


__raspi_module_1_01-SNAP-IN FAN.STL

updated 12. 2. 2022

☐ Snap In Fan Module

309.8 KB

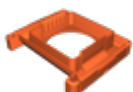


__raspi_module_1_01-SIF_OLED.STL

updated 12. 2. 2022

☐ Snap In Fan Module with 128x32 OLED

357.3 KB



__raspi_module_1_01-SIF_TERM.STL

updated 12. 2. 2022

☐ Snap In Fan with Terminal Slot

330.9 KB



__raspi_module_1_01-ROCKET.STL

updated 6. 1. 2022

308.5 KB



__raspi_module_1_01-BLANK.STL

updated 12. 2. 2022

☐ Blank Module

167.5 KB



__raspi_module_1_01-OLED.STL

updated 12. 2. 2022

☐ Terminal Slot with 128x64 OLED

311.7 KB



__raspi_module_1_01-2XSLOT_TERM.STL

updated 12. 2. 2022

☐ Terminal Slot with 2 Cable Slots

201.0 KB





__raspi_module_1_01-OLED_ONLY.STL

298.3 KB

updated 12. 2. 2022

📄 128x64 OLED Slot



__raspi_module_1_04-SIF_CAMERA_SLOT.STL

325.6 KB

updated 12. 2. 2022

📄 Snap In Fan wit Cable Slot for Camera



module_1_01_blank.STEP

227.4 KB

updated 12. 2. 2022

📄 STEP Module for Designing Your Own Module



DEEP_RAILS_STL

6 files



__ss_rail_1_04-MINI_RL_DEEP.STL

411.9 KB

updated 12. 2. 2022

📄 Rear Left Mounting Rail for Mini for DEEP top



__ss_rail_1_04-WALL_DEEP_L.STL

435.4 KB

updated 12. 2. 2022

📄 Left Wall Mounting Rail for DEEP Top



__ss_rail_1_04-MK3S_DEEP.STL

512.8 KB

updated 12. 2. 2022

📄 MK3S Mounting Rail for DEEP top



__ss_rail_1_04-WALL_DEEP_R.STL

427.3 KB

updated 12. 2. 2022

📄 Right Wall Mounting Rail for DEEP Top



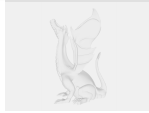
__ss_rail_1_04-MINI_DEEP.STL

95.9 KB

updated 12. 2. 2022

📄 Rear Control Mounting Rail for Mini for DEEP top





__ss_rail_1_04_DEEP.STEP

updated 12. 2. 2022

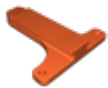
☐ Reference File for DEEP Rail

163.3 KB



STANDARD_RAILS_STL

7 files



__ss_rail_1_04-MK3S_STD.STL

updated 12. 2. 2022

☐ MK3S Mounting Rail for STANDARD top

533.4 KB



__ss_rail_1_04-MINI_STD.STL

updated 12. 2. 2022

☐ Rear Control Mounting Rail for Mini for STANDARD top

108.2 KB



__ss_rail_1_04-MINI_RL_STD.STL

updated 12. 2. 2022

☐ Rear Left Mounting Rail for Mini for STANDARD top

410.1 KB



__ss_rail_1_04-WALL_STD_R.STL

updated 12. 2. 2022

☐ Right Wall Mounting Rail for STANDARD Top

425.8 KB

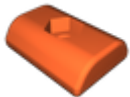


__ss_rail_1_04-WALL_STD_L.STL

updated 12. 2. 2022

☐ Left Wall Mounting Rail for STANDARD Top

439.7 KB

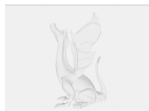


3030_ROLL_NUT.stl

updated 12. 2. 2022

☐ M3 Roll Nut for 3030 Extrusion

380.6 KB



__ss_rail_1_04_STD.STEP

updated 12. 2. 2022

☐ Reference File for STANDARD Rail

163.4 KB



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