

Smarti Pi Touch Pro

Assembly instructions

Updated in April 2024 to be compatible with Raspberry Pi 3,4, and 5

Updated in April 2024 to be compatible with Raspberry Pi camera version 2 and 3

Questions or missing parts? Email info@smarticase.com
Drawings and CAD files are available at smarticase.com

Using this case with Raspberry Pi 5

In April 2024 a new gold colored Raspberry Pi 5 display ribbon cable was added to this kit. This display cable makes it compatible with Raspberry Pi 5.

When using this case with Pi 5 there will be a warning in Pi OS that says

*This power supply is not capable of supplying 5A
Power to peripherals will be restricted*

There are no communication lines in our splitter cable therefore the Raspberry Pi will not be able to detect a 5A power supply even if it is connected. Therefore it is not possible to prevent this message from appearing.

You can override the restricting of the current to the USB ports by doing one of the two things below.

1 - Adding `usb_max_current_enable=1` in `/boot/firmware/config.txt`

OR

2 - Enabling USB max current on the Pi OS desktop GUI under preferences -> configuration

Once enabled the Pi5 will not restrict power to the peripherals and will allow 1600mA to the USB ports.

One thing to note is that even if you are using a 5A power supply, our splitter cable is only rated for 3A. If you try to draw more than 3A through our splitter, the voltage will drop too low for the Raspberry Pi to function and it will reboot.

Power supply

Always use a UL or CE marked wall power supply with the included splitter cables. Use a wall power supply that can deliver enough current for your application. For best results, use a 5.1 volt power supply to avoid low voltage warning on the display. The official Raspberry Pi power supply is recommended.

The splitter cables are only for use with the Raspberry Pi and Official Raspberry Pi display.

Raspberry Pi 2 and 3

5.1 V 2.5A Micro USB Power supply recommended



Raspberry Pi 4 and 5

5.1 V 3A USB-C Power supply recommended

Also compatible with the Raspberry Pi 27W power supply, but only up to 3A



Assembly Step 1

Please choose which splitter works your Raspberry Pi model. Insert the female end into the back cover as shown below. The cable can be assembled in either of two positions. Option 1 extends further out for easier access. Option 2 is the more compact option.



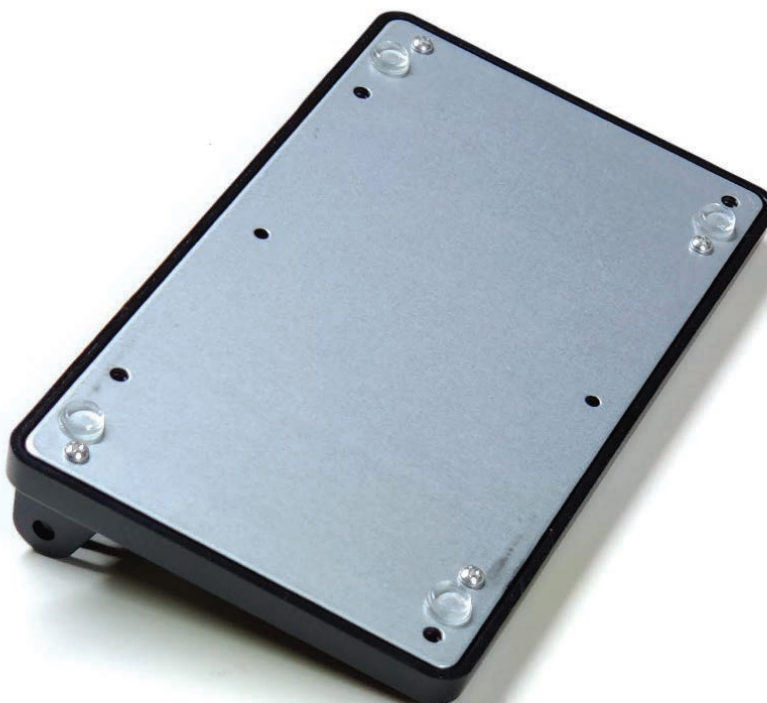
Assembly Step 2

Use the two small black screws to secure the small plastic retaining part to the back cover. This will hold the power cable in the case.



Assembly Step 3

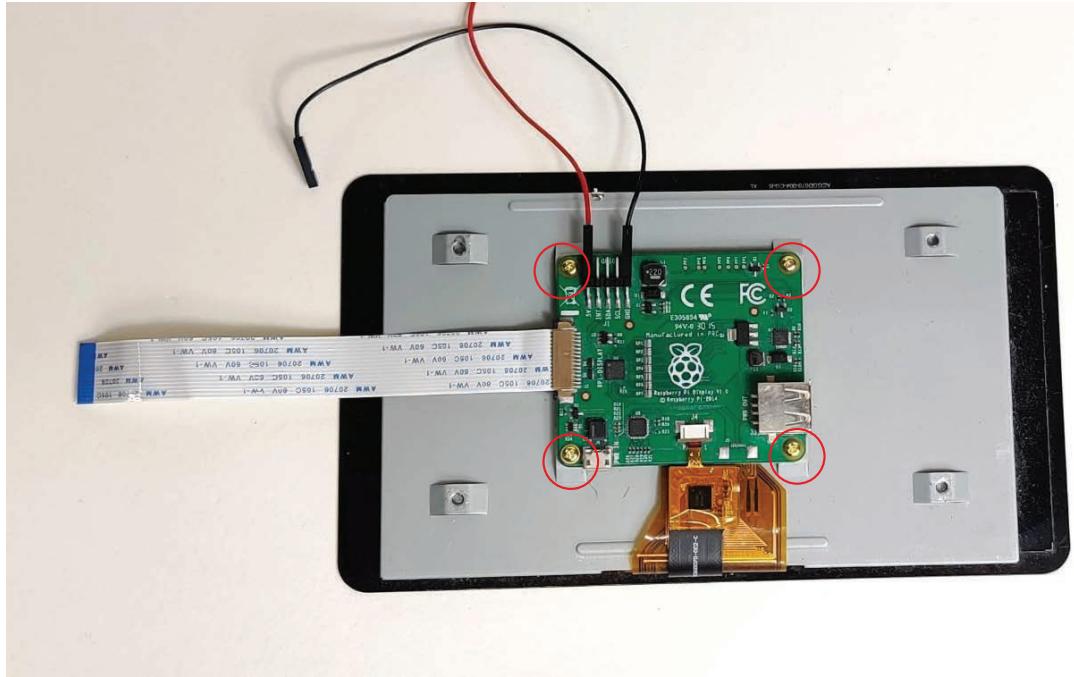
Assemble the metal base on the bottom of the plastic base. The metal base can only properly assemble onto the base one way. Please make sure all of the holes are aligned. Use the four silver screws to attach the metal base to the plastic base. Assemble the screws as shown in the photo. Then assemble the adhesive rubber feet in the locations show below.



Assembly Step 4

For Pi 3 and 4

Assemble one of the white ribbon cables with the contacts facing up to the display connection on the display board. If using the fan, connect the red jumper lead **that came with the display** to the 5v connection on the display board GPIO pins and the black jumper lead to the ground pin. Remove the standoffs that attach the display board to the display and replace with the provided gold screws (circled in red).



For Pi 5

Assemble the gold ribbon cable with the contacts facing up to the display connection on the display board. If using the fan, connect the red jumper lead **that came with the display** to the 5v connection on the display board GPIO pins and the black jumper lead to the ground pin. Remove the standoffs that attach the display board to the display and replace with the provided gold screws (circled in red).



The small piece of material connecting the ribbon cable together can be cut to make assembly easier. It is there to strengthen the cable during transport.

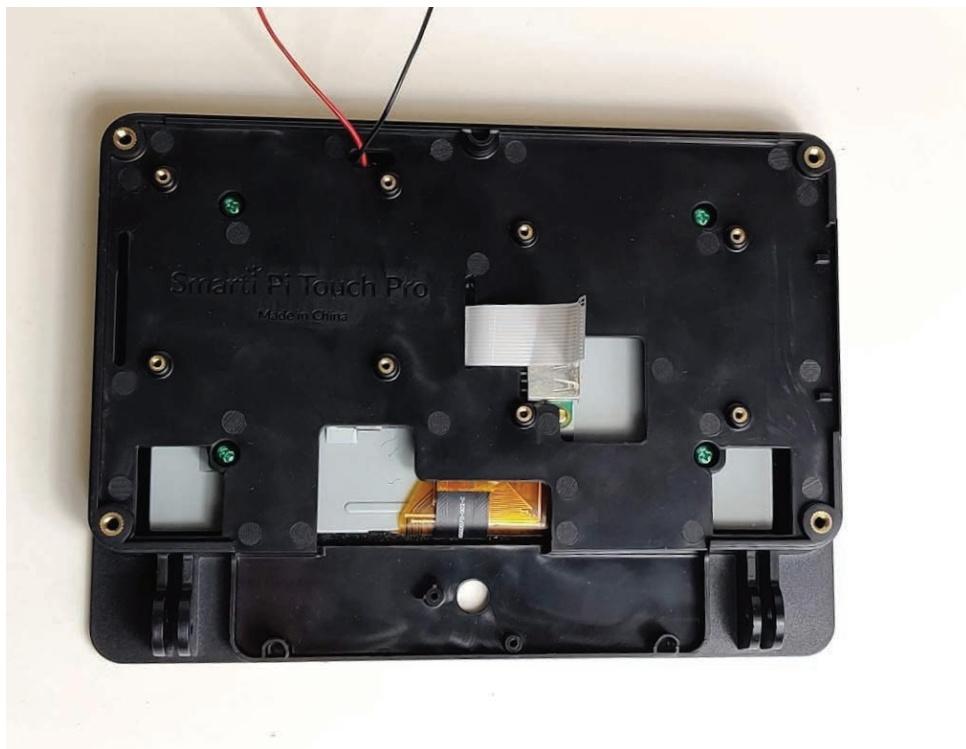


A piece of tape (not provided) can be added to the cable here to help secure it to the display.

Assembly Step 5

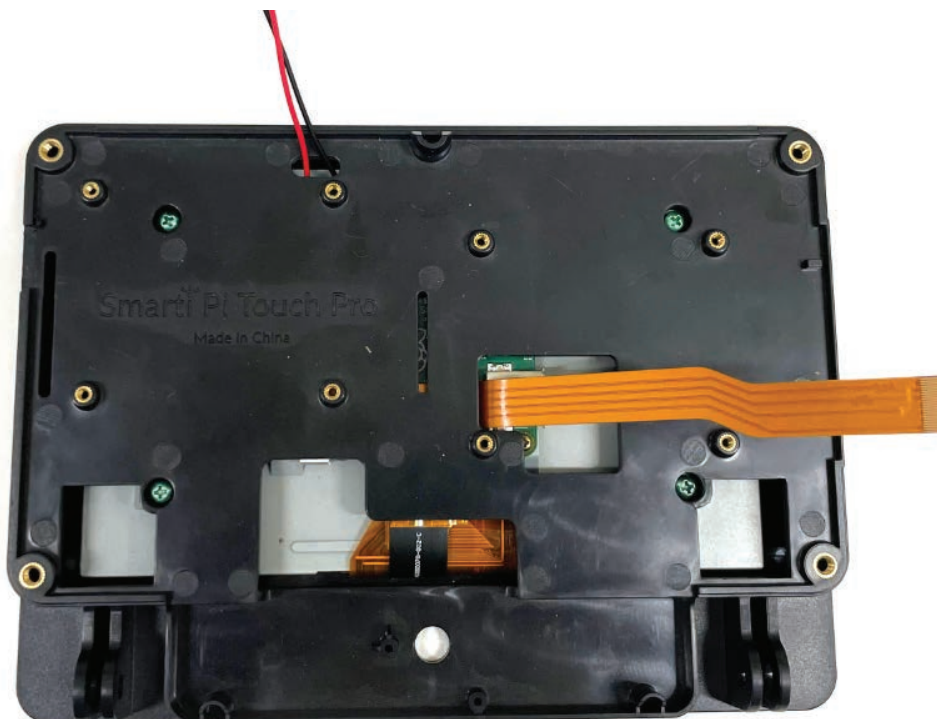
For Pi 3 and 4

Attach the display to the housing using the green screws as shown below. Feed the white ribbon cable through the slot in the center of the housing. Feed the fan power leads through the hole at the top.



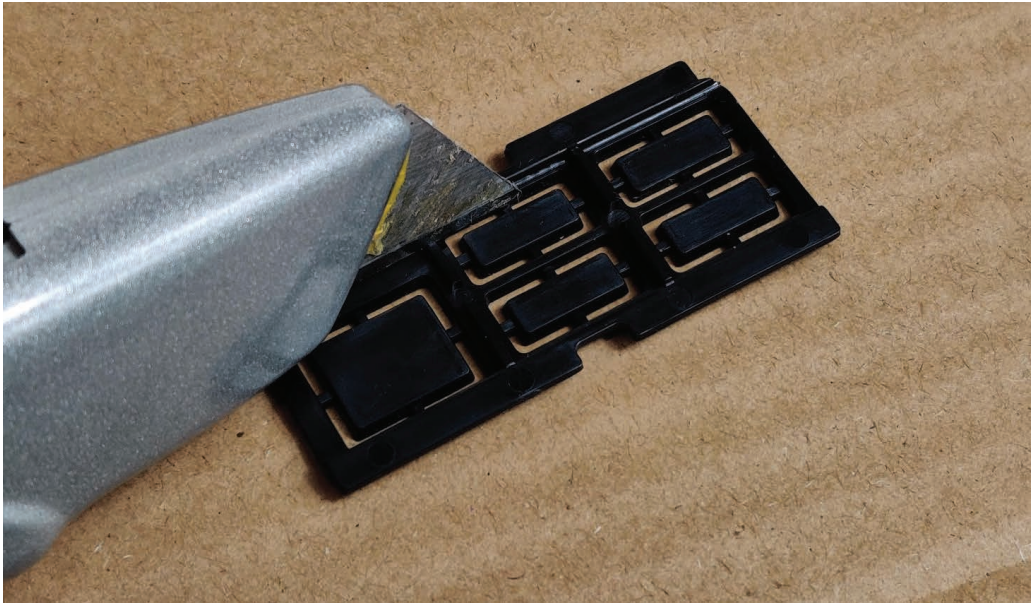
For Pi 5

Attach the display to the housing using the green screws as shown below. Feed the gold ribbon cable through the housing as shown below. Feed the fan power leads through the hole at the top.



Assembly Step 6

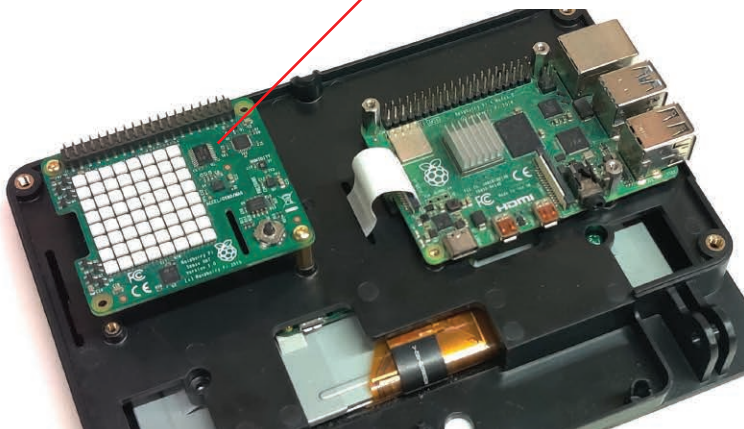
If using the port blocking part, from the back side cut out the desired ports with a utility knife. Two parts are included. One for Pi 2/3 and one for Pi 4. This part is completely optional.



Assembly Step 7

Assemble the port block part and the Raspberry Pi at the same time to the display housing. **Use the standoffs that were removed in step 4 to hold the Raspberry Pi in place.** Route the ribbon cables as shown below and attach to the Raspberry Pi display connectors.

You can also purchase additional m2.5 standoffs and screws to attach HAT boards or other hardware to the other set of m2.5 threaded inserts. (49mm x 58mm)
You would have to connect them to the Pi with appropriate cabling.



Pi 3 and 4



Pi 5

You can choose to mount the Raspberry Pi in the other set of brass inserts if you wish. Although you won't have access to the USB and ethernet ports from the outside. We offer small extension cables in our store that extend USB port access and audio jack access back out to the side of the case when mounting the Pi in this configuration.



Pi 3 and 4



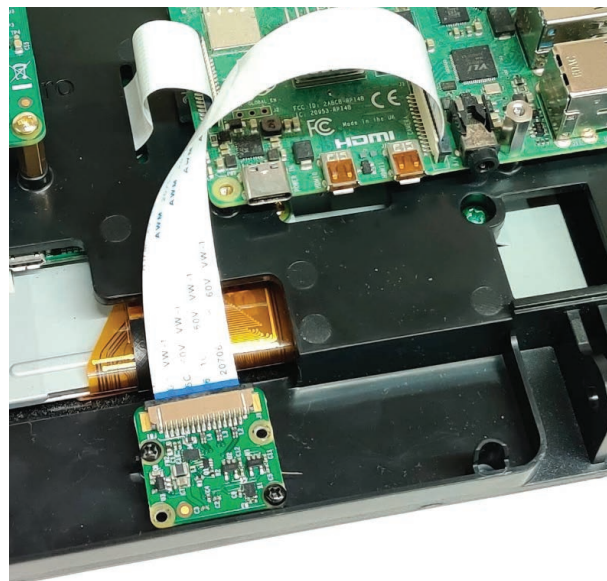
Pi 5

Assembly Step 8

If you are not using the camera, proceed to Step 9.

If you choose to use the camera hole, the Official Raspberry Pi camera (v2 or v3) can be assembled into the camera hole with two of the small black screws. If using Raspberry Pi 3 or 4, one of the supplied white ribbon cables can be used to attach the camera.

If using a Raspberry Pi 5 you will need to supply your own cable. The Raspberry Pi 5 has a new smaller camera connector and requires a special cable to connect to the camera. This cable is usually available where Raspberry Pis are sold.



Do not overtighten the screws!

Assembly Step 9

If you chose to not use the camera, you can temporarily plug the hole with the small plastic cover part with two of the small black screws.

Alternatively, you can permanently cover the camera hole with the adhesive front panel. Do not have the plastic camera cover part installed when you apply the adhesive panel. The adhesive panel is not removable.

Custom artwork and logos can be added to this adhesive panel for bulk quantity purchases. Contact us for more info.



Or



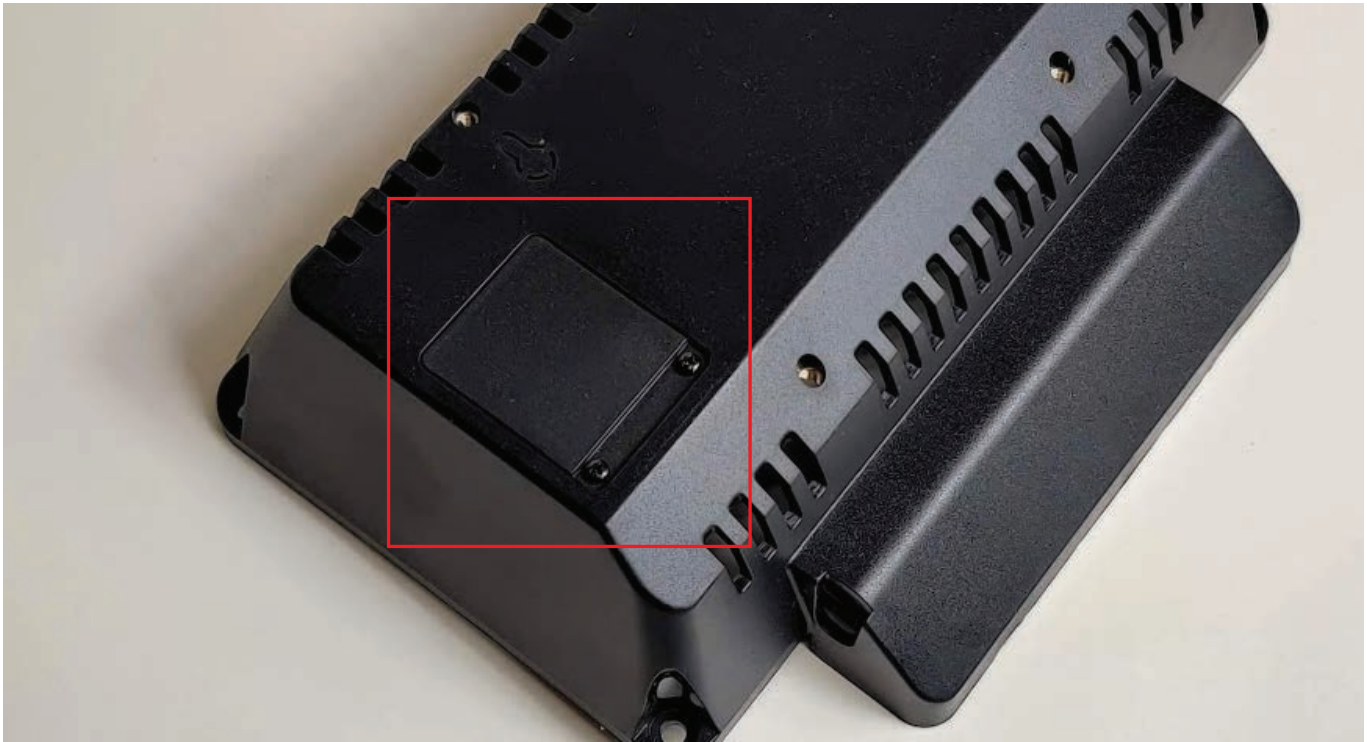
Assembly Step 10

Assemble the display housing to the stand with the large black screws and nuts. **DO NOT OVERTIGHTEN.** Loosely attach the screws at this point.



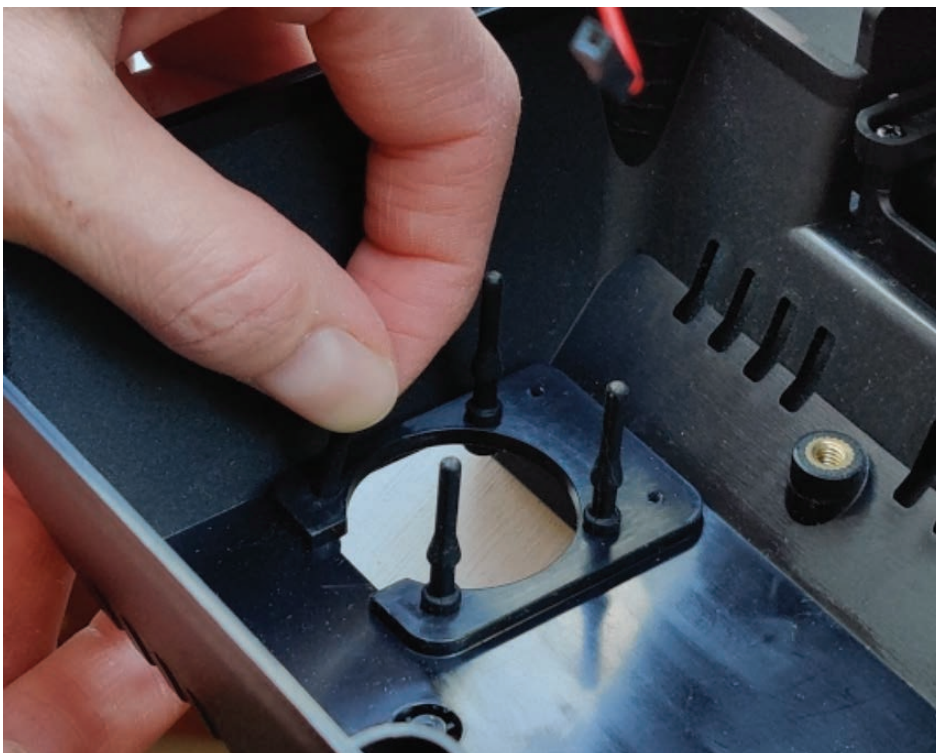
Assembly Step 11

If you choose to not use the fan, the small door can be assembled into the hole in the back cover and attach with two of the small black screws.



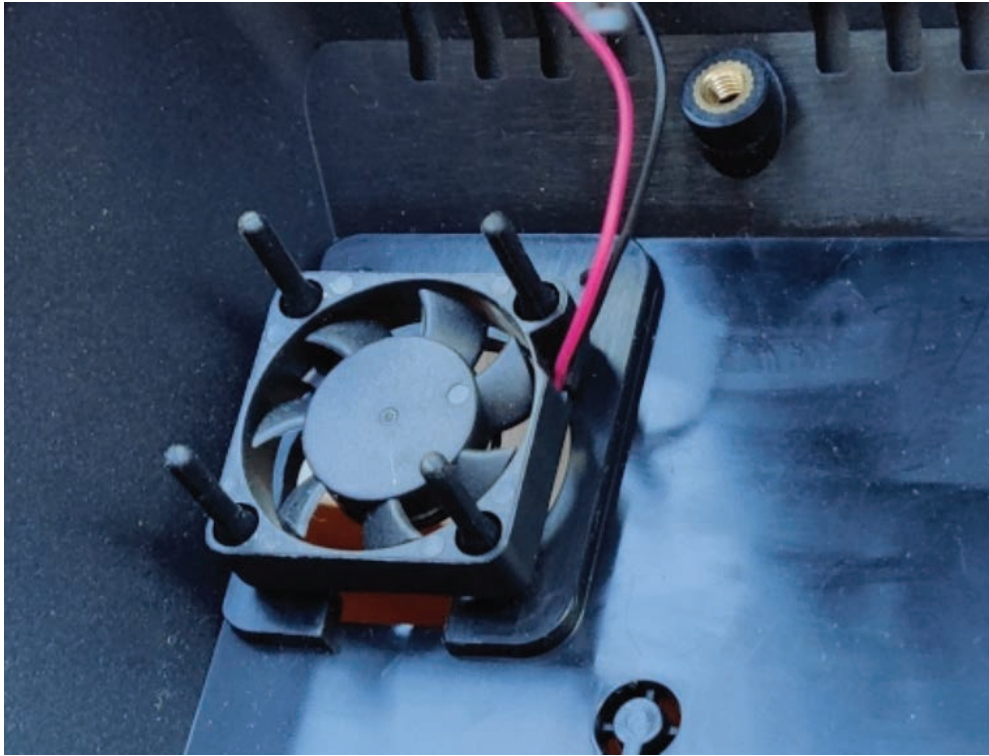
Assembly Step 12

If you choose to use the fan, attach the small rubber vibration mounts to the holes in the back cover as shown below. Push the small end of the mount through the back cover from the outside. Then pull it through the cover as shown.



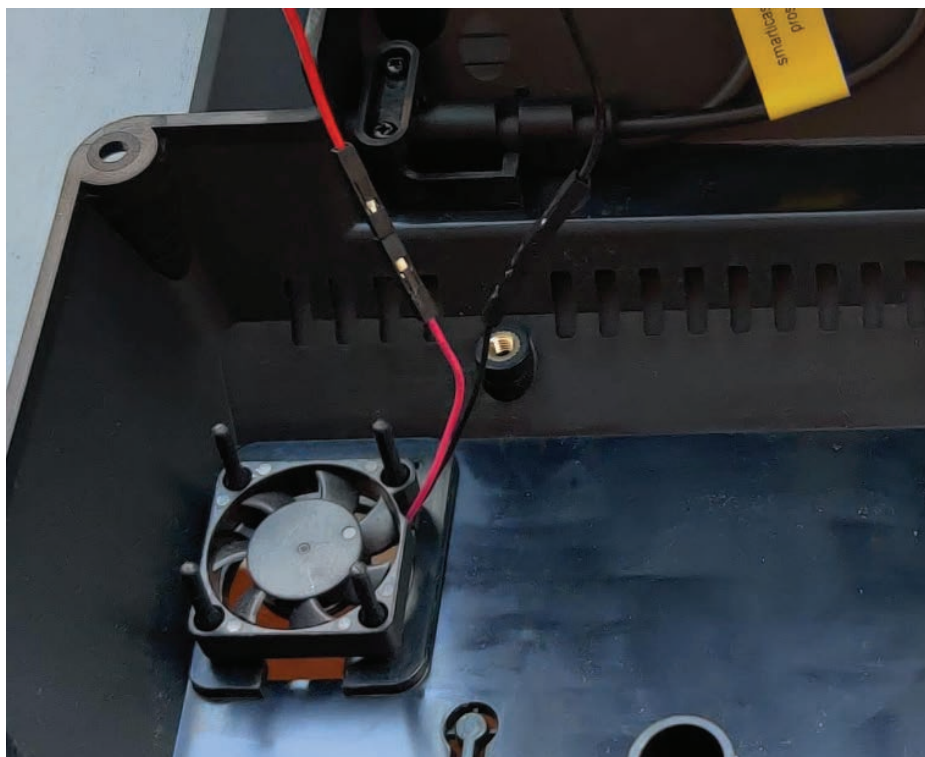
Assembly Step 13

Then pull the rubbers mounts through the fan holes and pull the thin end of the mount until the fan is mounted on the rubber mount as shown below. The fan should only be mounted in the way as shown below.



Assembly Step 14

Attach the power leads from the display to the red and black on the fan.

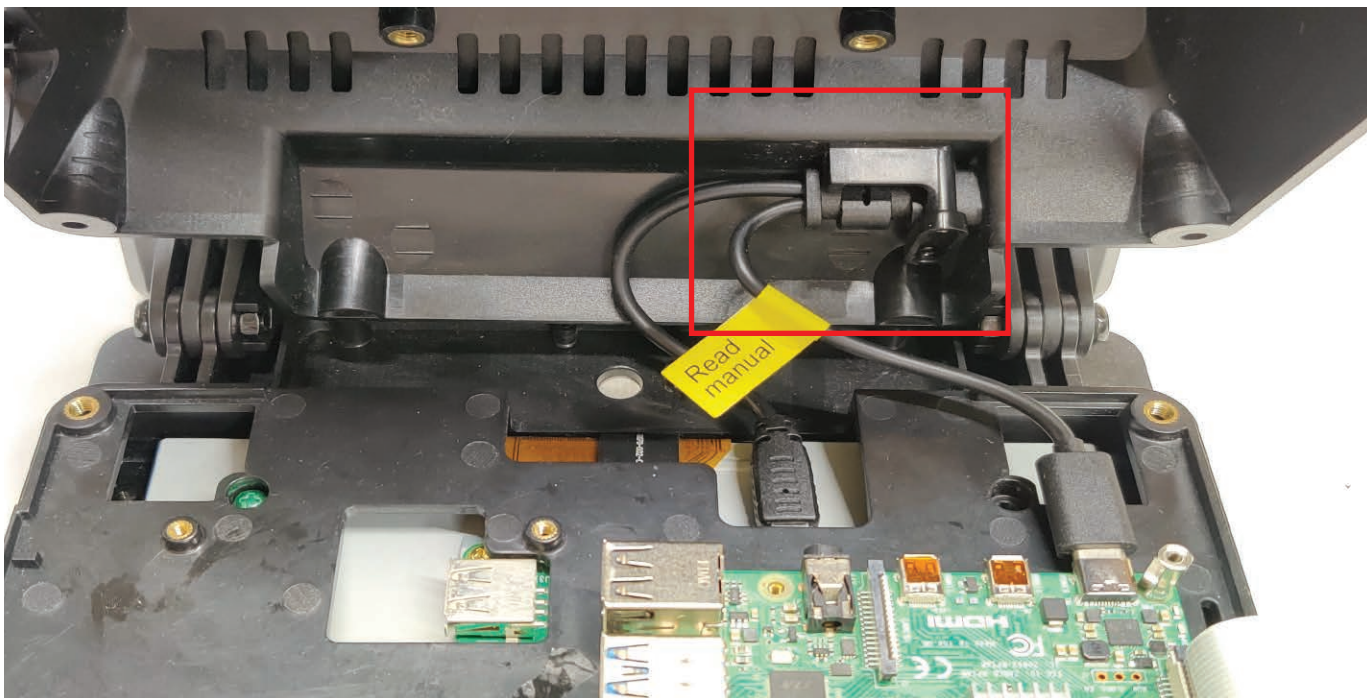


Assembly Step 15

Attach the power cables to the Pi and the display. You may choose to flip the position of the cable input so the power leads are not crossing each other and for more efficient wire routing.



If you are mounting the Raspberry Pi as shown below, you may need to mount the cable input at the farther out position and rotate the connector so that the Raspberry Pi cable lead is positioned closer to the Raspberry Pi as shown below.. This will give you more slack in the cable.



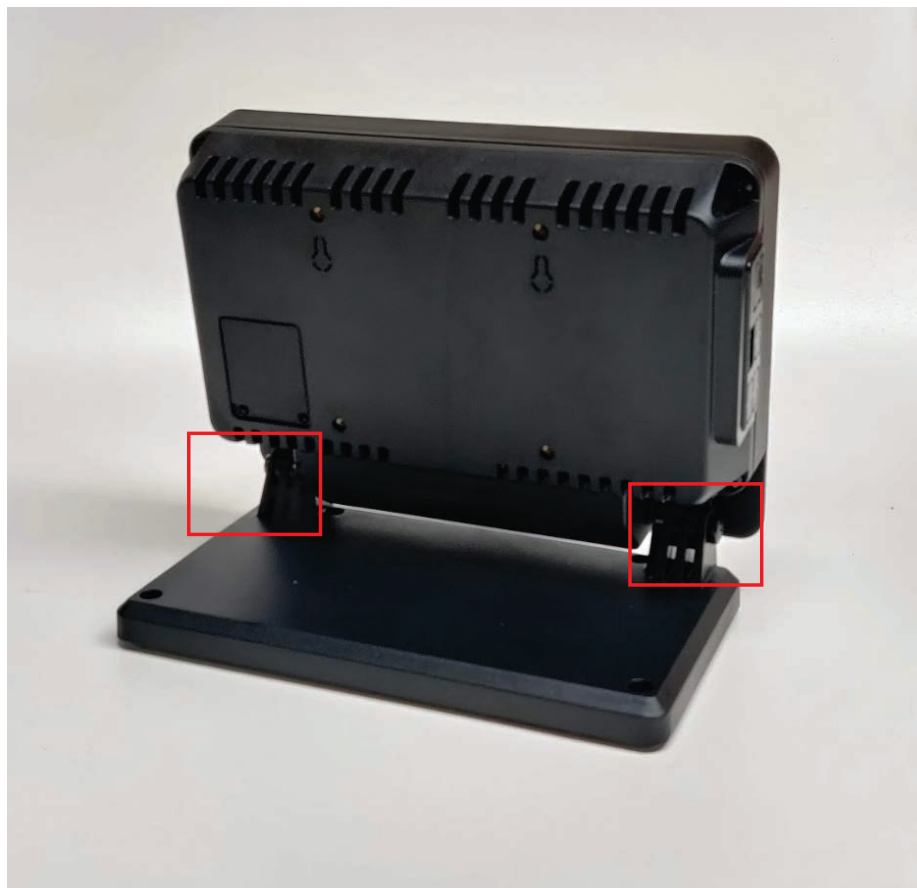
Assembly Step 16

Assemble the back cover to the display housing with the four black screws. The port blocking part should have tabs that fit inside the housing and cover.



Assembly Step 17

Adjust the angle of the display to suit you needs. Then tighten the pivot screws. **DO NOT OVERTIGHTEN.** Tighten the screws just enough to hold the display in place.



VESA mounts

75mm VESA mounts (circled in red) can be used to mount the display housing instead of using the stand. The threaded holes are size m4

Two eyelets can be cut out with a utility knife (circled in blue) to mount to a surface. The mounting points are 75mm apart.

