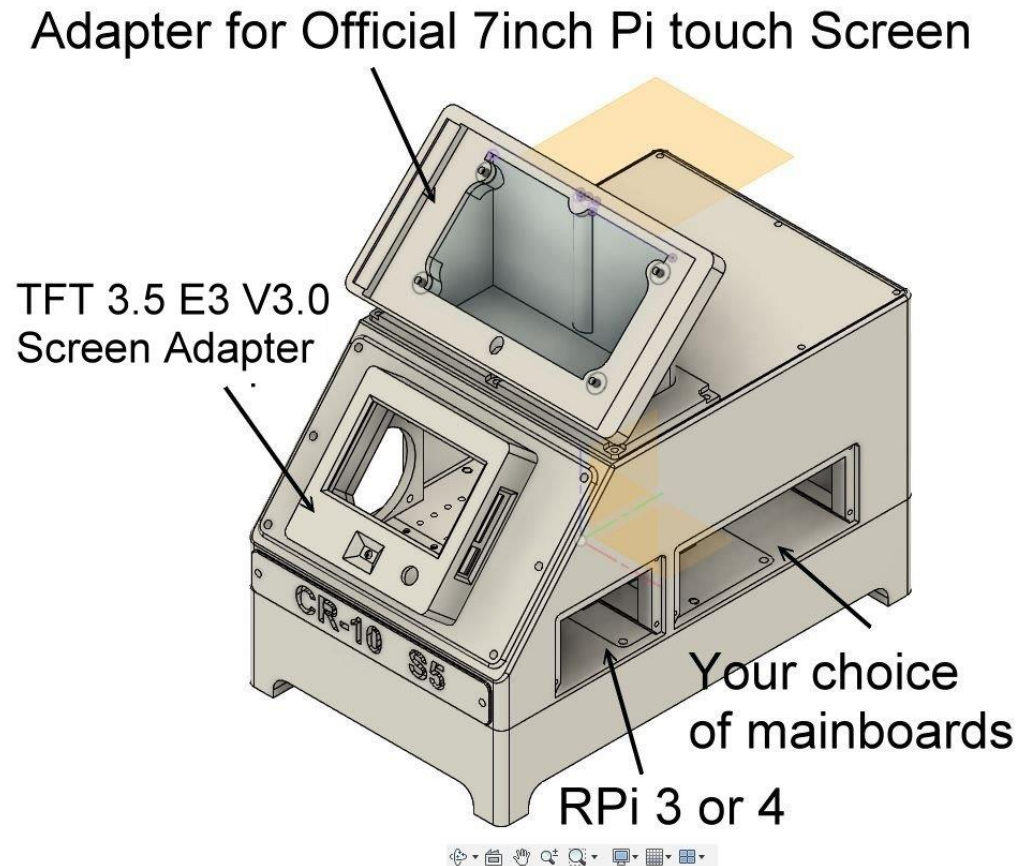
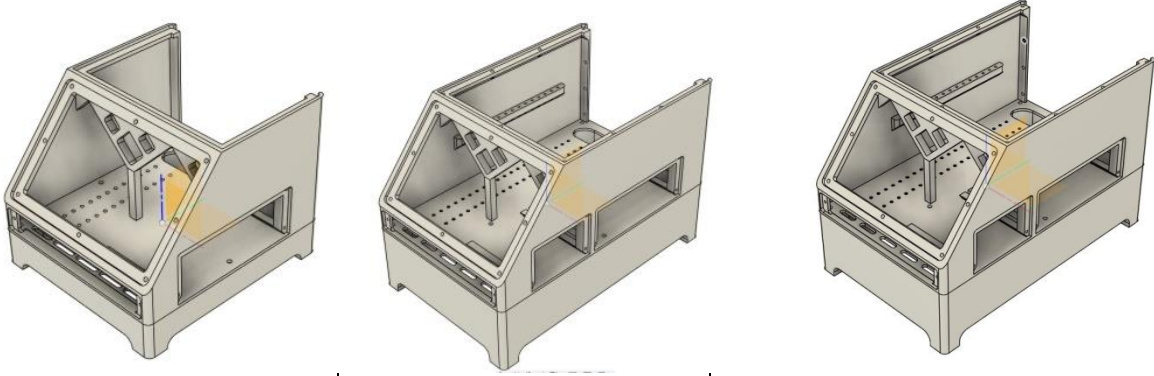
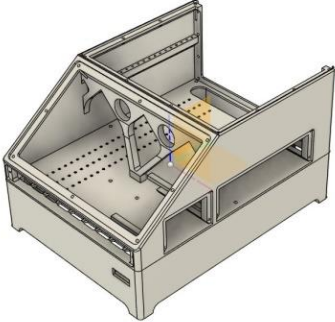


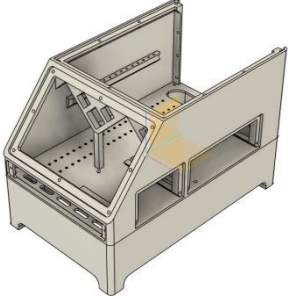
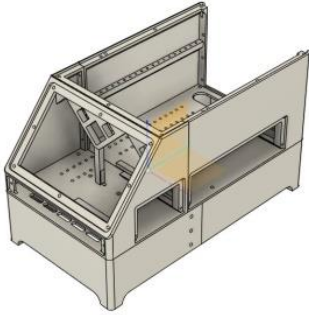
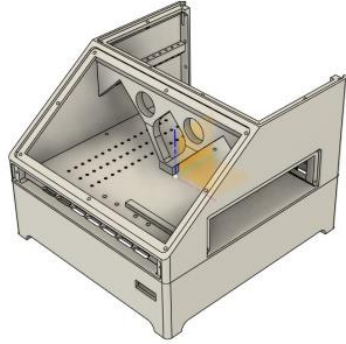
# ***Stand Alone Main Control Case with Modular Mounts for Various Mainboards, Display's, RPi's, Fans amd MORE!!!***



# Case Selection

## First Decide the Size of case you need.

Compact	Standard (Recommended)	Pro	The XL
If you just want a small no frills case, minimal. <b>This case is small and limited as to what you can do with it!</b>	If you want a good sized case with room for all the things you want to put inside the case.	If you want a case for the bigger mainboards like the SKR Pro V1.1	If you want a case for the bigger mainboards and 7" screens. It's a Monster
<i>Single Piece, need to be able to print a Part 205mm x 185mm</i>	<i>Single Piece, need to be able to print a Part 300mm x 185mm</i>	<i>Single Piece, need to be able to print a Part 340mm x 185mm</i>	<i>Only one option here, a single print. You will need to be able to print a Part 340mm x 255m.</i>  <b><i>This Case will not be available in multiple pieces because of its size!</i></b>
			

	<b>Standard 2 Piece</b> , if you need to be able to print on a smaller printer like an Ender3	<b>Pro 2 Piece</b> , if you need to be able to print on a smaller printer like an Ender3 You will need to be able to print a Part <b>217mm x 185mm</b>	<b>XL Compact</b> , If you don't need a RPi in the case but you want the larger case for the mainboard and 7" screen.
			

## Select your Mainboard Mount

Pick the Mainboard Mount for the board you are going to install, I.e. SKR v1.3, Creality board, etc.

Example: SKR V1.3 or higher = **Mainboard Mount - SKR V1.**

Creality 1.1.3 or Mini E3 = **Mainboard Mount - Creality 115\_SKR E3**

## Select your Display Mount

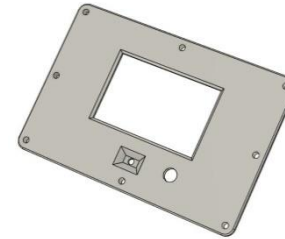
Pick the Display Mount for the display you are going to install, I.e. TFT 3.5 V3, LCD12864, etc.

Many LCD Displays Currently Supported. Same file formatting.

Some Display Mounts are available 2 ways, with SD card slot access (raised) and without (flush).

Example (Flush): TFT 3.5 E3 V3.0

***Display Mount - TFT35E3V30***

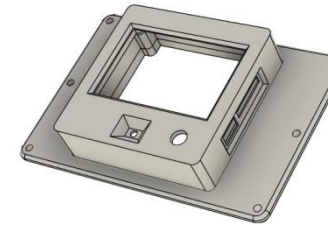


Example (Raised multiple pieces):

***Display Mount - TFT35E3V30 SD Access Body***

***Display Mount - TFT35E3V30 SD Access Spacer***

***Display Mount - TFT35E3V30 SD Access Cover***



## Select your CPU Mount

Pick the CPU Mount for the RPi you are going to install. I.e. Pi 3 or 4. Same file format as the other files.

## Select the appropriate lid for the case, Compact, Standard, or Pro.

There is a Mini, Compact, Standard, Standard 2 piece, Pro, Pro 2 piece, and XL versions of the lid. Select the appropriate version for your case. Same file format as the other files.

## **Internal Fan**

There are several double 4020 fan mounts to choose from.

Not everyone uses the internal fans, some use a lid mounted fan. Your choice.

## **Front Vent**

There are several front vents to choose from, print and install.

## **BLANKS**

Many components have a blank version. Use this if want to create your own component.

## **Fan Hats**

This gives you the option to mount components like Buck Converters and MOSFET's on top of the 4020 fans. Since there are way too many possible combo I have elected to post thee necessary files for you to create the combo you need.

## **Rear Panel**

There are 3 sizes of the Rear Panel, Mini, Standard and XL.

The Mini rear panel only fits the Mini

The Standard rear panel fits all cases including the Compact, Standard, 2pc Standard, Pro, and Pro 2 pc.

XL, fits only the XL and XL Compact Cases.

***Finally!***

**Print your files, assemble, and wire it anyway you see fit.**

Check out the Post Topic “Great Examples” for images of previous assemblies.

## **Printer Settings**

All Printers:

Infill = 20% or More

Supports = YES, MAX Overhang Angle = 55 degrees

T-Frame printers (Ender 3):

Speed - 50 mms or slower

Nozzle Temp – Print a temp tower to determine the best temperature setting for your filament.

PLA <https://www.thingiverse.com/thing:3477606>

PETG <https://www.thingiverse.com/thing:4229915>

Bed Temperature - Any

Cube style (Ender 5):

Speed – 50 mms or slower

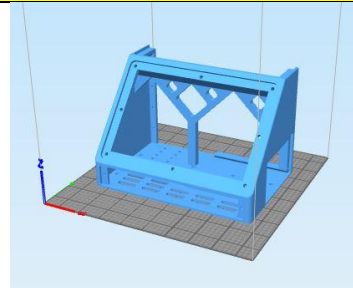
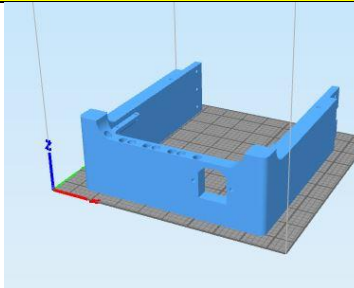
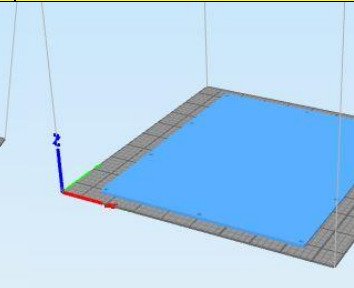
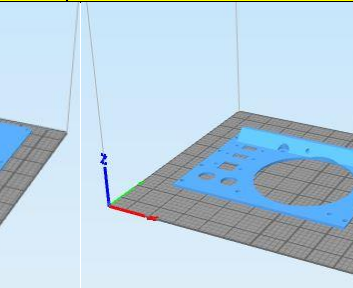
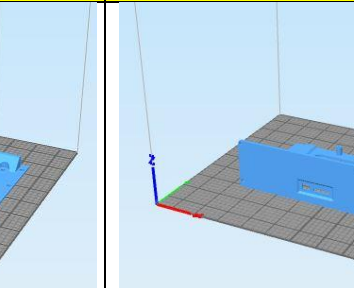
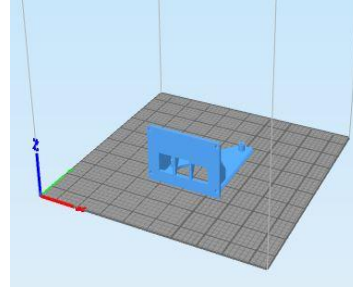
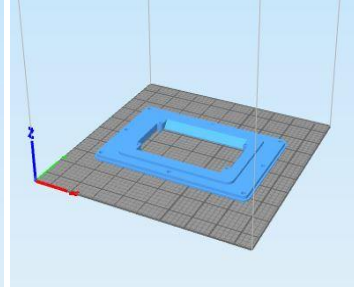
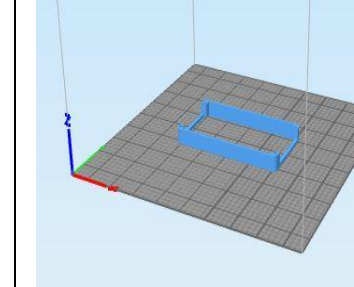
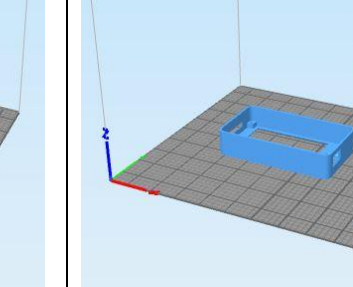
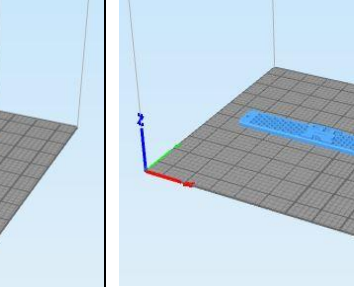
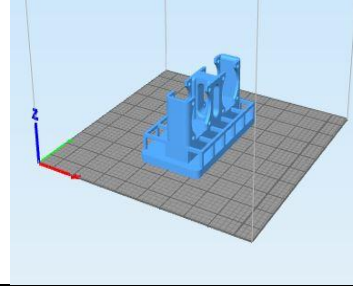
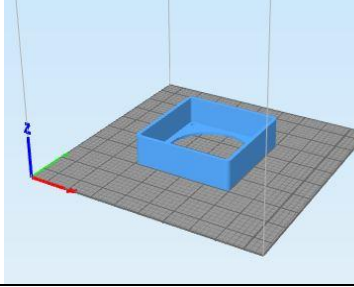
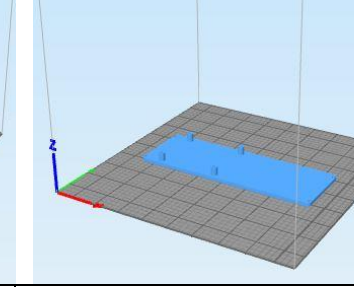
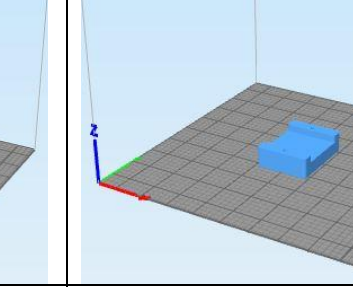
Nozzle Temp – Print a temp tower to determine the best temperature setting for your filament.

PLA <https://www.thingiverse.com/thing:3477606>

PETG <https://www.thingiverse.com/thing:4229915>

## Bed Temperature - Any

Supports – I highly recommend supports. Any setting should be fine. I use the default settings.

RECOMMENDED PRINTING ORIENTATION				
Main Case - ALL	Base - ALL	Lids	Rear Panel	Mainboard Mount
				
RPi Mount	Screen Base - ALL	Screen Spacer	Screen Cover	Front Panel or Vent
				
Fan Mounts	Rear Fan Cover	Upper Level Mounts	Various Floor Mounts	
				



Compatibility Chart								
	Mini	Compact	Standard	2 Pc. Standard	Pro	2 Pc. Pro	XL	XL Compact
Mini Lid	Yes	No	No	No	No	No	No	No
Compact Lid	No	Yes	No	No	No	No	No	No
Standard Lid	No	No	Yes	Yes	No	No	No	No
Pro Lid	No	No	No	No	Yes	Yes	No	No
2 Pc Pro Lid	No	No	No	No	No	Yes	No	No
XL Lid	No	No	No	No	No	No	Yes	No
Compact XL Lid	No	No	No	No	No	No	No	Yes
Mini Rear Panel	Yes	No	No	No	No	No	No	No
Rear Panel	No	Yes	Yes	Yes	Yes	Yes	No	No
Mainboard Mount - XXX	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Mainboard Mount Pro - XXX	No	No	No	No	No	No	Yes	Yes
CPU Mount - ALL	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Display Mount Mini	Yes	No	No	No	No	No	No	No
Display Mounts	No	Yes	Yes	Yes	Yes	Yes	No	No
Display Mount XL	No	No	No	No	No	No	Yes	Yes
Fan Mounts	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Front Vents	No	Yes	Yes	Yes	Yes	Yes	No	No
Front Vents XL	No	No	No	No	No	No	Yes	Yes

**!! NOTE the Mini is not yet available. Coming Soon**



## Where does the PSU mount?

The PSU mounts underneath the case. Unless you printed the Compact Case. Not enough room in this case design.

Connect with M3 x 6mm button head screws, NO longer than 6 mm. You could cause damage/



## Fasteners (Recommended sizes are not absolute)

**Main Body to Base**

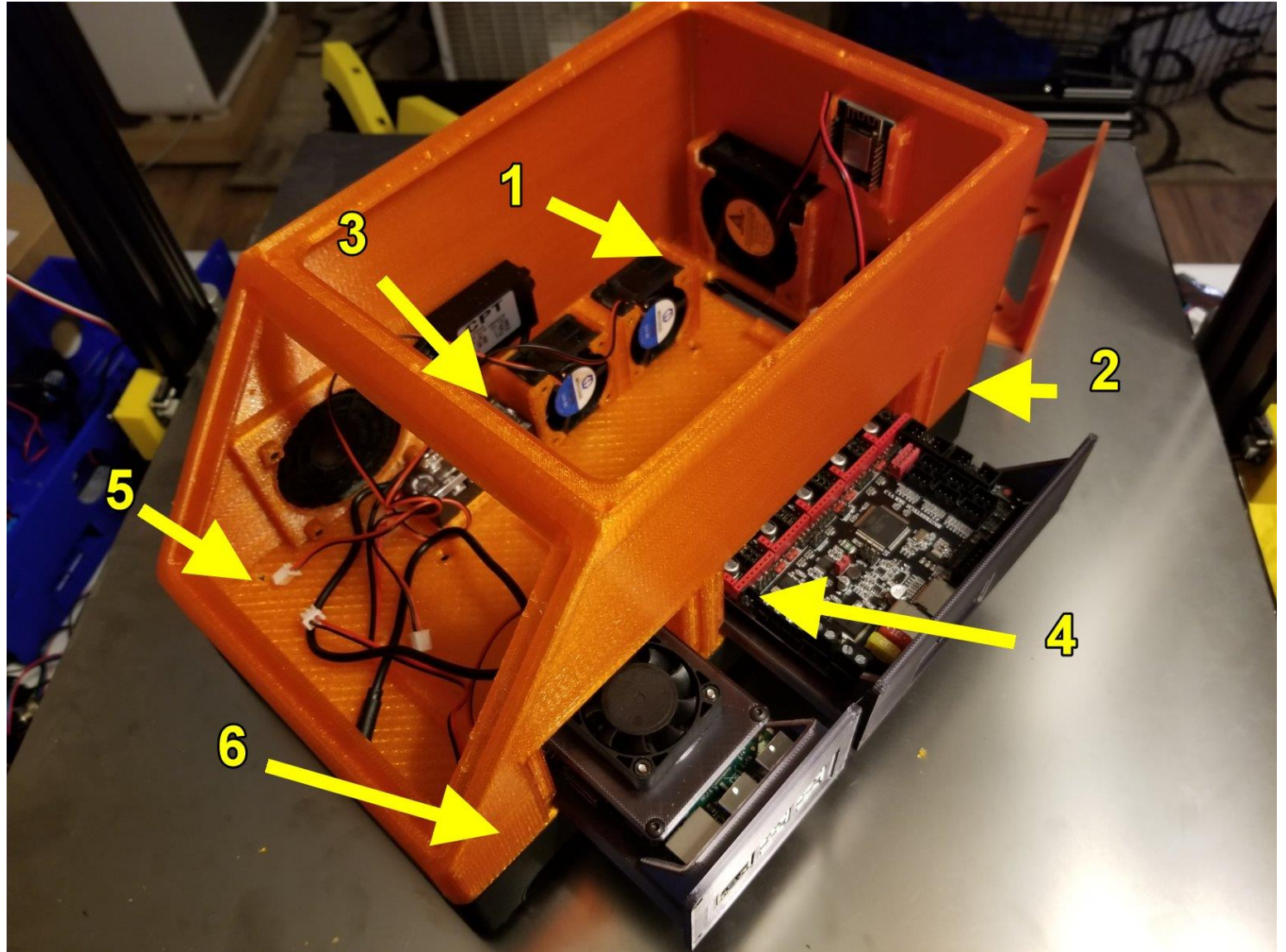
**M4 x 16 Button  
Head Screws**

or

**#8 x  $\frac{3}{4}$  Sheet Metal  
Screws**

or

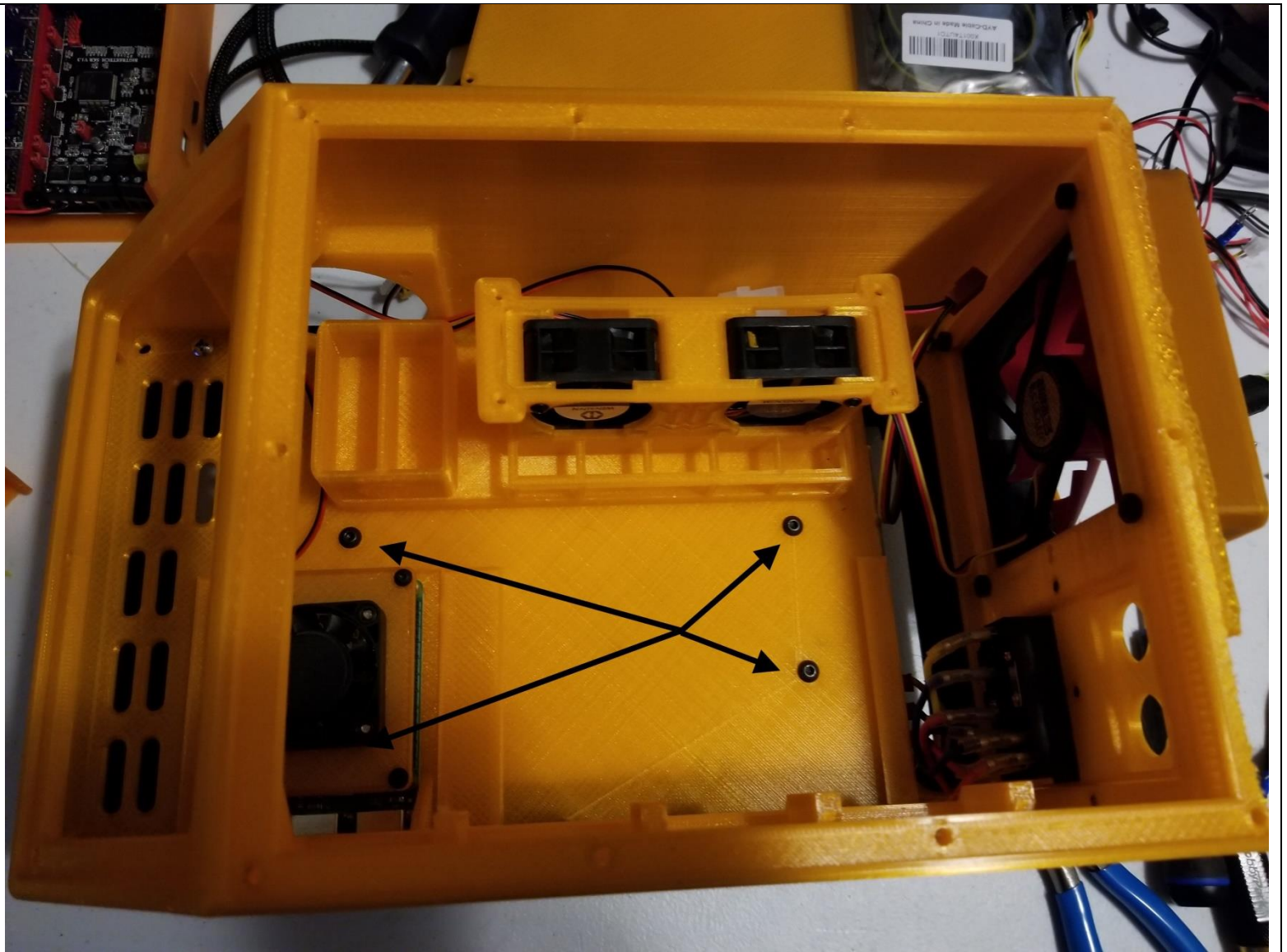
**#10 x  $\frac{3}{4}$   
Sheet Metal Screw  
s**





**PSU to bottom of  
Main Body**

**M4 x 6 Button Head  
Screw**



## Front Display Mount

M4 x 12

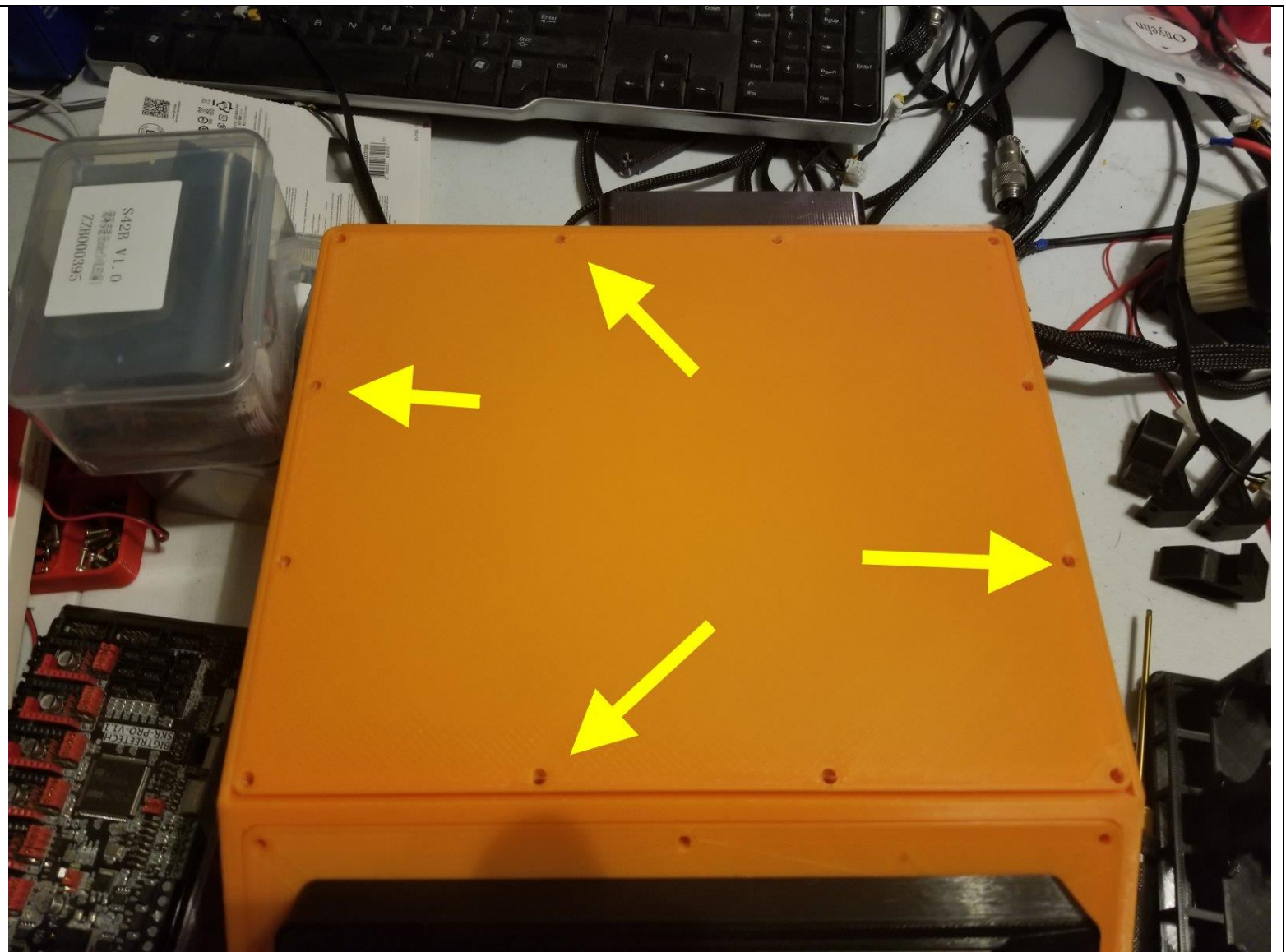
Most displays attach to the mount with M3's of various lengths.





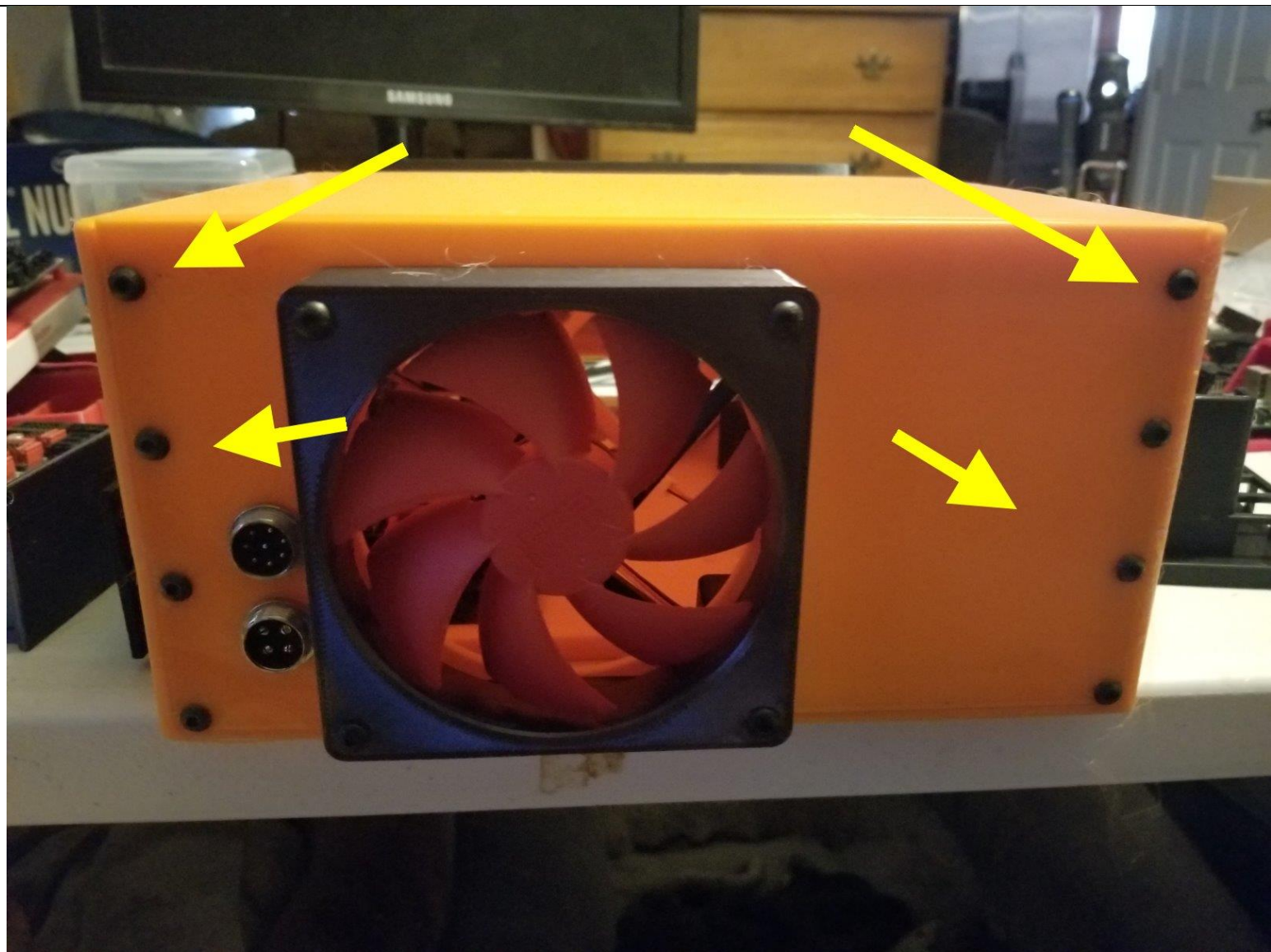
Lid

M4 x 12



**Rear Panel**

**M4 x 12**





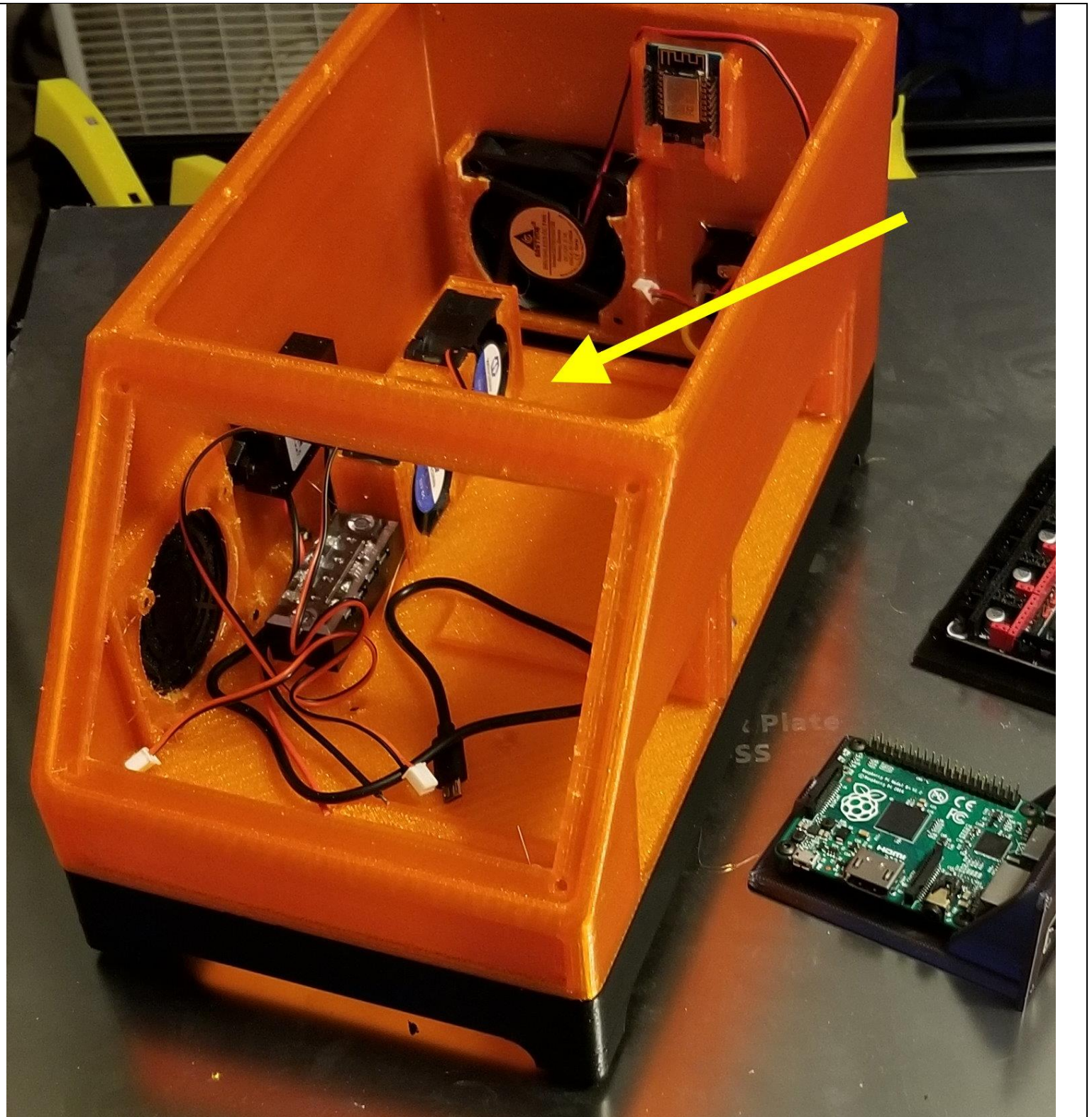
## Bay Mounts





**Fan Mounts**  
(attached from underneath)

**M3 x 8 Flat Head**



## **Accessories:**

### **Raspberry Pi 7 inch Touch Screen (Official)**

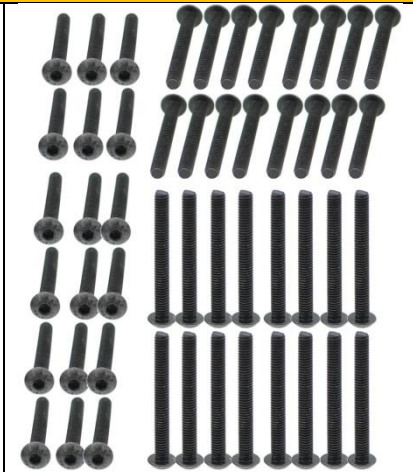
1. Install the screw on the inside of the base mount to the lid (3- M4 screws)
2. Set the screen in the screen mount and use 4- M3x12 socket head screws to attach the screen and the mount at the same time. 2 from under the lid thru the opening and 2 from the top behind the base mount. Be careful not to over tighten these screws.
3. Do the wiring.
4. Attach lid to case.
- 5.

### **Solid State Relay Floor Mounts**

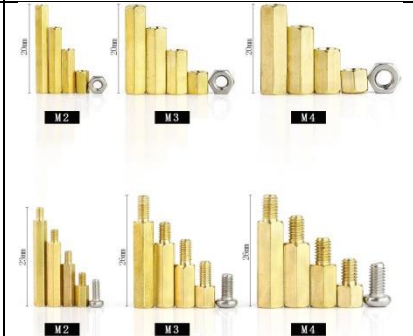
**!!!! Caution!!! When SSR's fail, they usually fail closed. This means that if it fails, the bed will heat to its max temperature and the printer controls will not be able to control it. This could easily start a fire. Always use a Secondary Method of Thermal Runaway Protection!!! One that monitors the bed temperature and sits idle until the temperature goes above a setpoint, i.e. 120 degrees C. Then will kick in and prevent it from getting any higher.**

## Parts:

**Screws;**  
**Miscellaneous M3 and M4 Bolts**  
**Miscellaneous M3 and M4 Nuts**  
**8x3/4 or 10x3/4 sheet metal screws (to attach the base)**



**M3x15 brass standoff - to mount the fan board on the RPi**



**Small Round Rubber Feet W/Screws - .250 H X .671 D**





**(If you are using this on a 24VDC system, then get the appropriate 24v parts, 12VDC then those appropriate parts.)**



**Buck Converters: HOMREE DC-DC Converter Step Down Module 12/24V to 5V Micro USB Output Buck Power Adapter (Micro USB) - power for RPi 2/3**



**Dust Covers: 100, 92, 60mm Black Plastic Dustproof Case Fan Dust Filter Guard Grill Protector Cover PC Computer Pack of 5**

