

CS7.2 Electronics Enclosure Assembly Guide

Printing the parts

The models for the 3d printed parts for the classifier base are available in the “Electronics Enclosure” folder in the GitHub CS7.2 repo.

<https://github.com/sjseth/Al-Case-Sorter-CS7.2/tree/main/Models/Electronics%20Enclosure>

From this folder, you need to print the following models.

- CS7.2 Electronics Box
- CS7.2 Electronics Box Lid
- CS7.2 Wire Cover
- CS7.2 Mount with Rotator – Plate
- CS7.2 Mount with Rotator

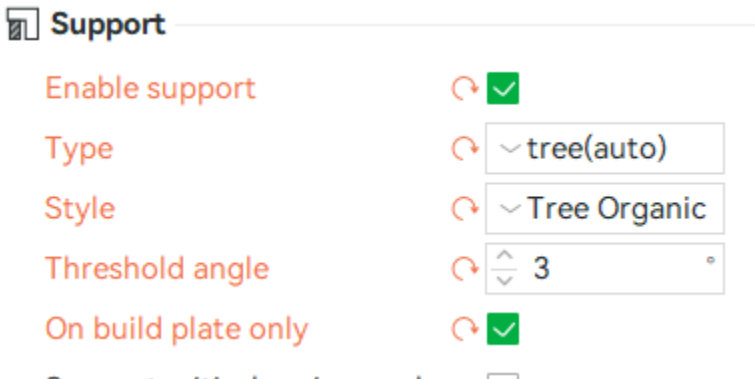
For these parts here are the basic recommendations:

Filament: PLA+ or PETG.

Color: These parts can be printed in any color you have available.

Layer Height: .2 or finer

Support: Recommend using tree support for the Electronics box, however, use the support mode you get the best results with on your printer. For Bambu printers, I have found these settings work well:



Note that other slices such as Cura, the support angle may read 87 degrees (opposite of Bambu/Orca slicer)

Strength/Density: 3 walls, 20% infill

Assembly

Tools Required:

- Screwdriver with bits or Allen keys for M3 socket head cap screws
- Small Phillips head screwdriver

Hardware required:

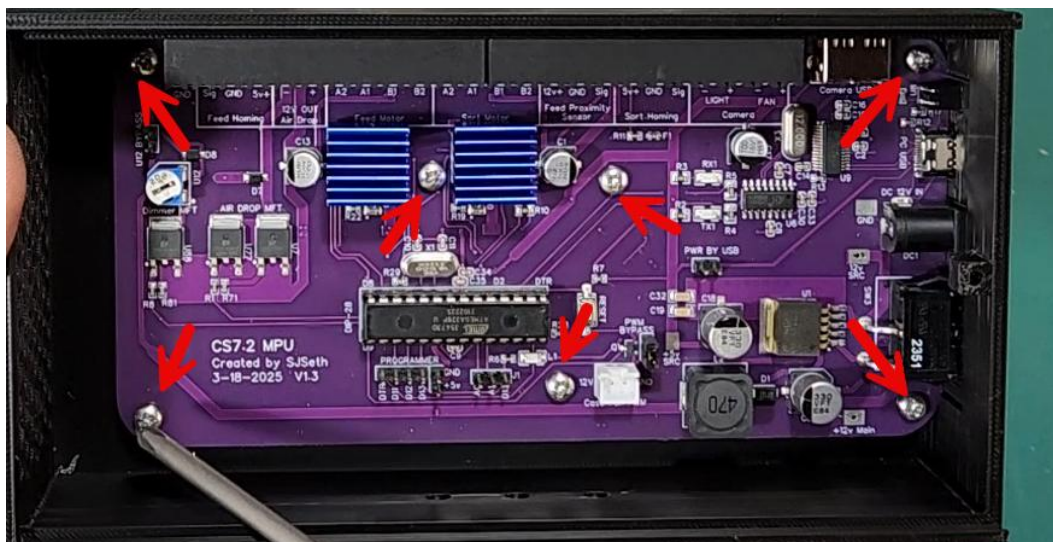
- (7) M3x5 Phillips Head Screws (Main Board mount)
- (4) M3x14 Phillips Head Counter Sunk (Fan)
 - If reversing for intake, use the longer M3x18 countersunk screws
- (4) M3 nuts (Fan Mount)
- (1) M3x8 Phillips Head Screws (box cover lock)
- (1) M3x8 (or longer) Socket Head Screw (Electronics box Mount)

Electronics and Misc

- (1) CS7.2 Main Board
- (1) 12v 40mm Fan
- (1) CS7.2 Label Sticker

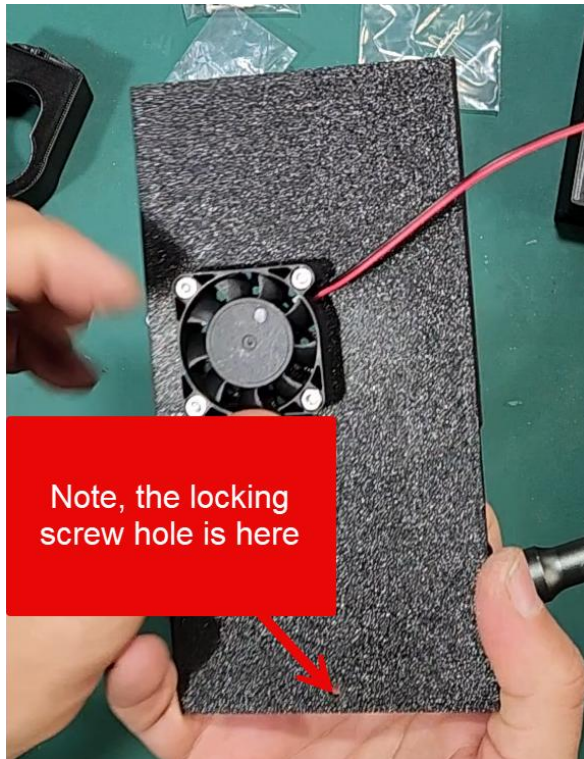
Assembly Steps

1. Remove 3d printed support material from Electronics box.
2. Place CS7.2 Main Board into the electronics box aligning the power inputs and switches with the holes. ***Important, do not use the motor heatsinks as gripping points as they will come off.**
3. Align the riser holes with those on the main board and insert the 7 M3x5 Phillips screws into those hole being sure not to overtighten. **Do not put too much downward pressure as if you slip, you can scratch the main board with the screw driver.**

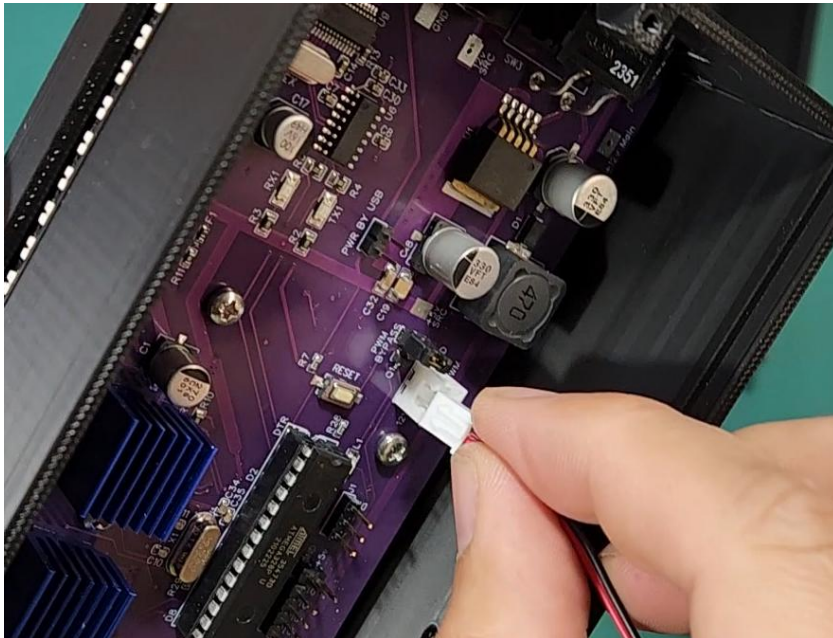


4. Before installing your fan, ensure that the countersunk recesses are deep enough for your screws to sit even to the top of the lid. If the screws protrude, you may want to use a camfer bit or countersink bit (or even a drill bit) to remove a little more material until the screws are flush.

5. Install fan on to the electronics box lid. The fan should be attached to the “flat side” of the lid meaning the side which does not have countersunk screw holes. Standard orientation is as an exhaust fan which means the M3 nuts will be inserted into the fan nut recesses.



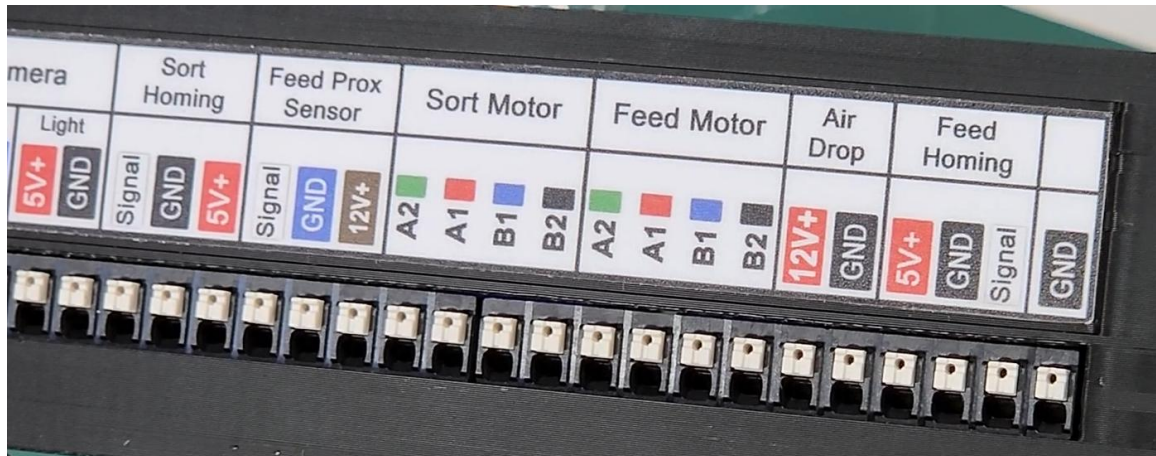
6. Attach the fan cable to the connector on the main board.



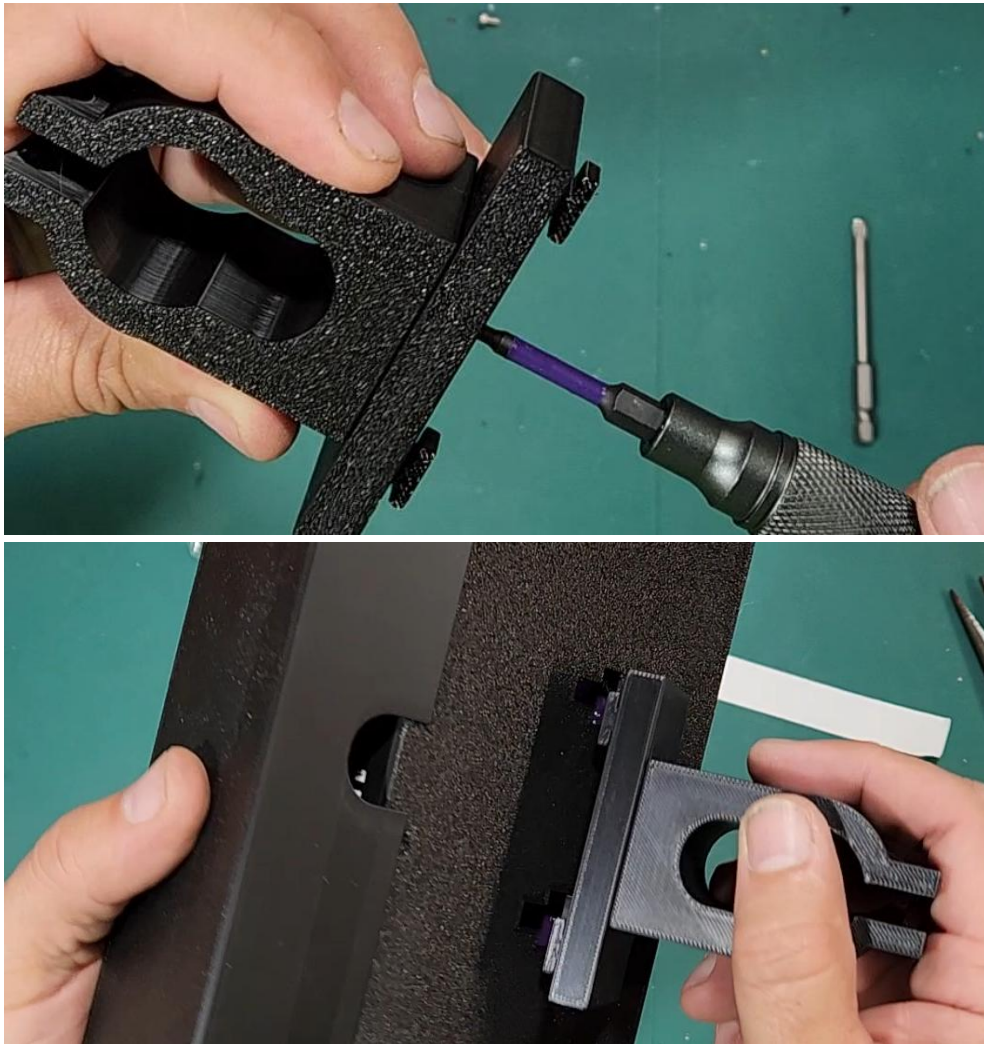
7. Inspect the electronics box lid to locate the cutout or notch in the rail. Place the opposite rail into the slot so that the fan and wires are inside the box. Align the end of the cutout to the edge of the electronics box and gently press down until the lid sets into the groove. (see example below)



8. Insert the m3x8 Phillips head counter sunk screw into the lid locking hole near the front end.
9. Peel and place the sticker label into the recess above the spring terminal on the side. Make sure to align the terminals to the sticker.



10. Attach the Mount rotator plate to the mount using an M3x8 or longer socket head screw.
11. The mount can now be attached to the pole when ready using the m6x30 socket screws along with the m6 wingnuts. The box has mount points on the back which slides into the pole mount.



Lastly the wire cover can be used to provide further wire management once you have connected everything to the electronics board using the spring clamp push terminals. The cover slides over the edge of the box and has holes on the side and end which can be used to route your cables/wires.