



Mount for toolboard Fly-SHT 42 or EBB 42 on a EVA 3.0 with LGX Lite

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Summary

Part to mount a toolboard Mellow Fly-SHT42 Or EBB 42 to the EVA 3.0 platform with a LGX Lite extruder

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Replaces EVA 3.0 Cable Guide with a Fly SHT 42 / EBB 42 mount that also contains a minimalistic cable guide.

It can be attached to the EVA 3.0 using the 3 screws same as the original Cable Guide, and for added support (or as an alternative) can also be attached to the LGX Lite LDO Pancake Motor with 20mm spacers (brass, nylon, or even 3d printed, as long as it can be threaded).

The added support might be beneficial for added rigidity of the cable mount, since the less the mount wobbles the better the life of the usb-c connector should be, but also to potentially improved the integrated ADXL sensor readings (completely untested, so it might not make a difference at all)

Contains a 1.8mm hole at the top between the 2 interconnected cable guides, this is to allow a piano wire or some other form of solid wire to be

used as a way to make sure the wire loom doesn't sag downwards. To make sure this wire doesn't come out, some zip tie “ridges” of the model can be used to tie the solid cable to the model.

Parts Mandatory for Fly-SHT 42:

1x printed Toolboard LGX Lite FlySHT EBB 42 EVA 3.0 Mount Heat inserts (fi) (Or alternatively the hex nuts version)

Parts Mandatory for EBB 42:

Printed part mentioned above.

2 to 4x printed Toolboard LGX Lite EBB 42 EVA 3.0 Mount Spacer | Alternatively any 1mm nylon washer or spacer of any kind (preferably non-conductive) will work, these are to be placed between the mount and the PCB Board.

Parts to attach mount to the PCB Board when using the heat insert version:

4x heat inserts with size M3 x D4.6 x L4.0 (same as the EVA 3.0 uses), if the Heat insert version of the part is used.

Parts to attach mount to the PCB Board when using the hex nuts version:

4x M3 hex nuts to mount the PCB to the part, if the Hex Nuts version of the part is used.

To attach only to the EVA 3.0:

3x 8mm m3 screw (for the eva 3.0 original cable guide mount location)

To attach only to the LGX Lite motor:

2x 20mm m3 brass/nylon/printed threaded spacers (recommended heat inserts version, even if heat inserts aren't used)

2x 30mm m3 screw (to replace the LGX Lite screws)

If attaching to the motor the amount of heat inserts/hex nuts can be cut in half (from 4 of each, to 2 of each), since the threaded spacers will additionally do the job of these parts.

To attach to both EVA 3.0 and LGX Lite motor, use all the parts mentioned in the previous 2 sections.

Optional:

Zip ties, as needed to secure the cables up top, these should have no more than 3.5mm width.

Printing Instructions:

The same settings used to print EVA 3.0 parts can be used here

Layer Size: 0.2 or 0.3 mm, higher layer sizes are likely to cause issues

Supports: Only put supports where shown in the slicer image, no supports for PCB holes necessary, they are made to be printed without supports and without requiring post print processing regardless of the version used.

Printing orientation: Laying flat as shown in the slicer image.

Credit goes to the EVA 3.0 team (of which I have no association with), since not only is the EVA 3.0 attachment point a modification of the original part, but the PCB mount itself is also a modification of the LGX (non-lite version) mount found on the EVA 3.0 Onshape repository, so this model is merely a minor tweak of those 2 models made by the EVA team.

This remix is based on



EVA 3 - Modular 3D Printer carriage platform

by McAbra

Model files



toolboard-lgx-lite-flysh-ebb-42-eva-30-mount-heat-... .stl



toolboard-lgx-lite-flysh-ebb-42-eva-30-mount-heat-... .step



toolboard-lgx-lite-flysh-ebb-42-eva-30-mount-hex-n... .stl



toolboard-lgx-lite-flyshft-ebb-42-eva-30-mount-hex-n... .step



toolboard-lgx-lite-ebb-42-eva-30-mount-spacer.stl



toolboard-lgx-lite-ebb-42-eva-30-mount-spacer.step

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