



LED Strip Mounting Tray for the Original Prusa Enclosure



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updated 10. 2. 2024 | published 10. 2. 2024

Summary

Prusa Enclosure internal mounting tray for 400 mm LED strip with clear diffuser.

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Since I was too cheap to buy the optional lights, switch and external power supply with the Prusa Enclosure, I looked around and found that I had a leftover strip of 12 volt LEDs that were about 400mm long and an old 12 VDC power supply.

I created this mounting tray to mount a 400 mm LED strip in the inner corner of the Prusa enclosure, pretty much exactly where the one from Prusa would have mounted. Since the tray is too big to print on my Prusa Mk.4, I split it into two parts. I used a little bit of Super Lube (PTFE) grease where the parts friction fit together.

I printed the tray in black PETG, and the light diffuser in Clear PETG (both OVERTURE brand).

I also used leftover M3x8 (3) screws from the enclosure build kit to mount the tray.

The screws will cut their own threads with some force, but I prefer to use an M3 tap and a little Super Lube oil to cut threads in advance.

Here are links to my light & fan switch solution. (I have future plans for an air purifier)

<https://www.printables.com/model/743333-custom-light-fan-switch-mounting-panel>

<https://www.printables.com/model/743309-custom-light-fan-switch-mounting-arms>

Additional Notes on the Clear PETG light diffuser:

I printed the light diffuser with the outward facing surface on the Prusa Mk. 4 textured bed to better diffuse the light. However, I wanted the upward facing side and the inside of the diffuser to be as clear as possible to preserve as much light as possible. I tweaked the print settings for the clear PETG as follows:

Print Settings start with "0.10mm Detail" preset

- Layers and perimeters
 - Layer height
 - First layer Height: **0.1mm**
 - Vertical shells
 - Perimeters: 2
 - Horizontal Shells
 - Solid Layers: Top: 0 Bottom: 0
- Infill
 - Fill Density: **100%**
 - Fill Pattern: **Aligned Rectilinear**
- Speed
 - Speed for print moves
 - Infill: 45
- Advanced
 - Extrusion width
 - Infill: 0.5mm

Filament Settings start with "Generic PETG"

- Cooling (**DISABLE the parts cooling fan for the whole print**)
 - Enable
 - Keep fan always on: UNCHECK
 - Enable auto cooling: UNCHECK

- Fan settings
 - Fan speed
 - Min: 0

Model files



led-trayv2-partab.stl



led-difuserv2-partab.stl

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