

## Neptune PSU cover with modular fan mount 40mm 60mm 80mm 90mm 120mm for quiet print - Neptune 3/4 Pro



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### Summary

Neptune PSU cover with modular fan mount for quiet print. Allows to mount PSU cover with attached door.

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Neptune 3 Pro / 4 Pro PSU cover with modular fan mount for quiet print. Allows to mount PSU cover with attached door. 40mm/ 60mm / 80mm / 90mm / 120mm fan is mounted outside of PSU which allows larger fan to be attached. Though it requires extra clearance under printer, so print some elevated feet.

WARNING: disconnect power cord from printer before working with PSU unit.

NOTE: photos showing 1st prototype, uploaded V2 models are significantly improved.

UPDATE (July 13 2024) : Added custom feet risers to elevate Elegoo Neptune for extra fan clearance: **ELEGOO Neptune 3 Pro / 4 Pro feet riser - plus 30mm / 40mm / 50mm**

UPDATE: added Neptune 3 Pro version for 120mm fan (10mm wider than PSU!), it requires reprinting PSU cover as well though due to enormous fan size.

UPDATE: added slightly modified version that should fit Neptune 4 MAX PSU (two mount holes near PSU power sockets line are shifted by 1mm toward fan location, comparing to 3 Pro PSU)

Stock Neptune 3 Pro PSU unit has quite loud fan. Opening PSU cover takes lots of effort - it is secured with bolts, but first you need to unscrew another 4 bolts and remove metal plate covering wires. Then you also need to unscrew printer front right feet to access one of the PSU cover bolt.

This custom PSU cover is providing easier access to fan mount without repeating all that disassembly steps again. If you choose to replace fan in future to larger size - all you need is to print another cover door and replace it there without removing PSU cover.

Fan mount door swivel is connecting to the PSU cover base using piece of PLA (or metal wire rod). Door can be opened by 90 degrees for easy mounting of the fan. When door is closed, it can be screwed to PSU cover, or secured using Noctua rubber connectors.

For my Neptune 3 Pro printer I'm using 12V Noctua A6x25 fan powered through buck converter from 24V socket of PSU fan. Extra wiring is added to locate buck converter at front panel of printer (see wiring pictures and ask if any questions), so fan speed can be controlled by reducing buck converter output voltage from 12V and lower. I'm printing with fan speed set to 10V. Mainboard fan is also replaced by another quiet Noctua A6x25 mounted externally and wired to same buck converter output, receiving same 10V in parallel. Benefit of this wiring is also keep Mainboard fan always active to cool board even during initial layer print (stock Mainboard fan socket is only powering fan when print part cullers are active).

Let me know if you have other size Noctua fan, can add door model for it.

Category: 3D Printer Parts

# Model files



**en3p\_psu\_cover\_modular\_fans\_v2\_base.stl**

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**en3p\_psu\_cover\_modular\_fans\_v2\_40mm.stl**

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**en3p\_psu\_cover\_modular\_fans\_v2\_60mm.stl**

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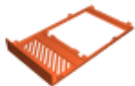
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**en3p\_psu\_cover\_modular\_fans\_v2\_90mm.stl**

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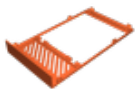
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**en3p\_psu\_cover\_modular\_fans\_v3\_120mm.stl**

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**en3p\_psu\_cover\_modular\_fans\_v3\_base.stl**

[Find source .stl files on Thingiverse.com](#)

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