



60mm fan duct for Elegoo Neptune Pro 3 hotend silent mod



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Summary

Designed this 60mm fan duct for quiet mod of Elegoo Neptune Pro 3 hotend cooling.

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ATTENTION: this design is obsolete and not very effective, check [dual 5015 fans solution](#) instead

UPDATE: added V2 with wider air flow and more durable mount

UPDATE 28-11-2023: Added V2 for 40mm fan per request, but not tested it (I personally think Noctua 40mm direct fan is not powerful enough to replace 40mm turbo fan).

UPDATE 28-11-2023: V3 - Added 60mm version with smooth cone walls and larger fan mount holes.

Didn't find model for Elegoo Neptune 3 Pro hotend cooling so made one from scratch. It's involving quiet but powerful enough 60mm Noctua A6 fan, and 24V-to-12V adapter.

I'd recommend printing with fan mount facing down, no support. After printing you'll need to drill three holes as shown at pictures to fit into the stock mount brace.

I first read following articles about mounting 40mm Noctua fan but decided that 40mm may be challenging to cool EN3P heatsink well enough, taking into account it's not a turbo fan. They also don't provide fan duct STLs anyway.

https://www.reddit.com/r/ElegooNeptune3/comments/17et6pq/silent_neptune_3_pro/

<https://notenoughtech.com/3dprint/silent-3d-printing/>

So I've experimented by remixing and modifying few duct models and adapters to see how 60mm fan works and results were great, but looking too bulky. Then I explored Blender and made a new model with better optimized air flow. It is transferring 60mm circle opening into 40mmX15mm output with 2mm thick walls, and air flow tilt angle is reduced.

With this mod EN3P is now extremely quiet with it's heatsink cooling is most quiet of all fans so far.

Model files



fan_duct_60mm_to_40x15mm_x38mm_b.stl



fan_duct_60mm_to_42x15mm_x40mm_v2.stl



fan_duct_40mm_to_42x15mm_x40mm.stl



fan_duct_60mm_to_42x15mm_x40mm_v3.stl

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