



Ender 3 S1 Extruder Ultimate Cooling



Kuna

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Summary

I was not happy with the original cooling, also designs I found did not satisfy my - so I decided to make it better.

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The main idea is from this design: <https://www.thingiverse.com/thing:5277750>

I could not get the CAD files so I designed from scratch in Fusion360 and made use of a partially scan of the extruder mounted on the axis.

It is divided into two parts, the mount for the part cooling fan and the mount for the hotend fan. For the part cooling I use 5015 turbine, 24V driven up to 50%. For the hotend 404020, 24V driven on 60%.

I will add a separate mount part so one can only use part cooler.

For the part cooler You need the trihorn from here: <https://www.thingiverse.com/thing:5398053>

Also some M3 screws and nuts needed.

Print from ABS or PETG, flat with supports, 13% infill, 4 walls.

I recommend to relocate the crtouch probe to be in line with the axis with this part:

<https://www.thingiverse.com/thing:5568032>

Model files

ender-3-s1-sprite-ultimate-cooling-part-fan-mount-b... .stl

☐ only needed if You do only part cooling

ender-3-s1-sprite-ultimate-cooling-part-fan-mount_v2 .stl

ender-3-s1-sprite-ultimate-cooling-hotend-fan-mount... .stl

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