

Ender Modular Hotend Carriage



iplop

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Summary

Update 2020-03-25: Now completely compatible with the Ender 2, 3, & 5!
Replaced BLtouchMount & HotendMount-V3_1 with...

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Tags: [hotend](#) [cooler](#) [ender](#) [microswitch](#) [ender2](#) [ender3](#)
[bltouch](#) [ender5](#) [microswiss](#)

Update 2020-03-25:

- Now completely compatible with the Ender 2, 3, & 5!
- Replaced **BLtouchMount** & **HotendMount-V3_1** with updated versions. I removed the heatshield & made a few minor usability improvements.
- Added: **Merged_Hotend&FanMount-V3_2.stl** for people who want to print this with materials other than ABS/ASA. It requires supports to print but should be completely doable.

Update 2019-10-08:

Replaced all files with slightly updated versions.

Changes:

- Fixed minor tolerance issues (the issues probably wouldn't bother anyone but me)
- Parts are now easier to print
- More clear part naming
- The .stp file now contains all parts
- The hotend mount now allows for more airflow
- Please do note the image of the sliced parts. That screenshot shows where the supports are needed as well as optimal print orientation

With that, I think this project is finished. I can't think of any other changes to make.

I should also probably add that this probably fits the Ender 2,3, CR10 & other variants. Unfortunately, I don't own those devices to test.

Okay, where to start..

Interesting things about this hotend mount:

- It's completely modular
- The part cooling mounts allow you to strap on any cooler you like (you may need to bodge on a mounting surface or something in meshmixer depending on your part coolers of choice)
- The BLtouch part of this can also be easily swapped out, excluded, or replaced with whatever
- The BLtouch offset is 30.4,0,3 (x,y,z)
- The hotend mount redirects coldend cooling air upwards through internal vents/channels so it doesn't interfere with your prints
- It's very compact (great if you're using an enclosure)
- It has a heatshield to protect your BLtouch (or other z-probe) from getting too toasty

Required hardware:

- Microswiss or stock creality hotend (maybe others fit???)
- Two 5015 Blowers (or whatever you need for coolers you decide to strap to the sides)
- A 4020 axial cold-end cooling fan
- Zipties (you can use screws instead to mount the 4020 fan if you'd like)
- For optional remote part cooling blowers: A good amount of 1/2in OD, 3/8in ID tubing

Assembly notes:

- The FanMount & HotendMount need to either be glued or ABS welded together. Let me know if you want me to upload a fused STL. It just seemed like a pain to print like that.

Print Settings

Printer:

Creality Ender 5

Rafts:

No

Supports:

Yes

Resolution:

0.2mm

Infill:

25%

Filament:

3dxtech ASA

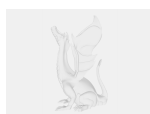
Natural

Notes:

5 Perimeters, 5 Top layers, 5 Bottom layers

Category: 3D Printer Parts

Model files



large_display_2x5015_to__5inod_vinyltubing_adapte.stl



large_display_tubecoolerb-v3_1_134015.stl



large_display_5015directcoolera-v3_1_134015.stl



large_display_5015directcoolerb-v3_1_134015.stl



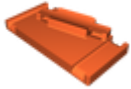
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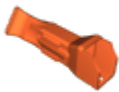
tubecoolerb-v3_1.stl



2x5015_to_5inod_vinyltubing_adapter-v3_1.stl



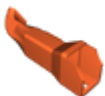
partcoolingmounta-v3_1.stl



5015directcoolera-v3_1.stl



tubecoolera-v3_1.stl



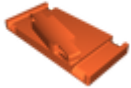
5015directcoolerb-v3_1.stl



fanmount-v3_1.stl



ender5carriagemount-v3_2.stp



partcoolingmountb-v3_1.stl



hotendmount-v3_2.stl



bltouchmount-v3_2.stl



merged_hotendfanmount-v3_2.stl

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

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