



Duet Wifi Board Mount for Anycubic Kossel XL, with 5010 Cooling



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Summary

As usual, I got something new for my Kossel (32-bit at last, whoop whoop, and YES it's worth it!) and had to roll my...

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As usual, I got something new for my Kossel (32-bit at last, whoop whoop, and YES it's worth it!) and had to roll my own mounting system. This uses a 5010 fan for cooling, with exhaust out the side of the printer frame. Airflow seems pretty even across the bottom of the board, although I haven't tested this quantitatively. You can definitely feel the stepper driver side of the exhaust heat up as printing gets on!

This is for the Anycubic Kossel XL but may fit other Kossels as long as they use 2020 extrusions and have 19mm of space between the bottom side extrusions. It is a bit on the long side, so if your printer is smaller than an XL you may want to measure to ensure clearance.

Allows access to everything across the back of the board (Wifi card, SD card, USB, and reset button, plus all 5 LED indicators). Includes LOTS of

ziptie points for securing everything, and the bottom is nicely curved if you need to route anything underneath.

I added an external PWM fan speed control to mine; I'd include the mount design I made for that, except I have no idea who made it or where anyone else could get one. Anyway.

Print one of each thing, EXCEPT take your pick of three faceplates: one includes a keyed slot for a 19mm-ish round power switch (which I've hooked up to control the ATX power supply I use), one includes space for a power switch but no holes, so you can cut/drill your own switch slot, and one is smaller if you don't want/need to mount a power switch.

You will need all 8 M4 spacers -- 4 go between the board and the heads of the mounting screws, and the other 4 are standoffs for the fan shroud, which will make the fan very loud/hissy if you don't use them.

Hardware needed:

- 8x M4 x 8mm screws (4 for the board, 4 for mounting the faceplate to the frame).
- 4x M4 x 20mm screws for the 5010 fan.
- 2x M4 x 12mm screws for attaching the cooling tray to the faceplate.
- 2x M4 nuts for ditto.
- 4x M4 T-nuts, which you should have from dismounting your existing faceplate.
- 1x Power switch if you're using one, plus hardware for it if needed.
- 1x 5010 fan. The one I chose is .12A and seems to work just fine. Pick a quiet one, probably.
- Zip ties!

Assemble by mounting the fan and the duet board FIRST, then slip the cooling tray between the frame extrusions and screw to the faceplate.

Print Settings

Printer:

Anycubic Linear Kossel XL

Rafts:

No

Supports:

Yes

Resolution:

.2

Infill:

15-20%

Filament:

Hatchbox PLA

Black

Notes:

Doesn't need thick top/bottom layers, but does benefit from thick walls -- I'd recommend 3-4 perimeters. The cooling tray and fan shroud do require supports, but the other parts shouldn't.

How I Designed This =====

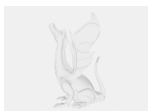
Designed from scratch in Sketchup.

Category: 3D Printer Accessories

Model files



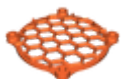
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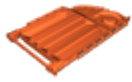
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m4_1mm_spacer_8pack.stl



5010_fan_shroud_hex_1.stl



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duet_board_holder_faceplate_drill_own_switch_2.stl



duet_board_holder_faceplate_no_switch_2.stl



duet_board_holder_faceplate_19mm_switch_2.stl

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

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