

## 2 Bay, 3 Slots, HDD Hot swap Case remix

 tagno25

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updated 2. 8. 2023 | published 2. 8. 2023

### Summary

I modified the design by shaztech to support a custom SATA backplane. The backplane supports activity LEDs, fan...

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I modified the [design by shaztech](#) to support a custom SATA backplane.

The backplane supports activity LEDs, fan connection, PWM fan input, Fan tach output, and drive hot-plug resistors.

To use without the activity LEDs, print just the back plane and back cover.

Additional models designed to use M3 heat-set inserts are included.

Pictures include PCB Revision 1. Current files are Revision 2

Additional required hardware:

- 5x M3x10mm
- 1x Fan screw (included with fan)

## Post-Printing

### Step 1 - Heat-set (Optional)

Install all M3 heat-set inserts (22)

### Step 2 - LEDs (Optional)

Wire up LEDs and insert into slots

Use hot glue to hold LEDs in place

Insert LED wire thorough hole in the side of the backplane and attach to PCB.

### Step 2 - Assemble PCB stack

Attach back cover to fan.

Install PCB retention screws (5)

Install fan mounting screws (3)

Attach PCB stack to base.

### Step 3

Plug fan into PCB

Install assembly into PC case and hook up power and SATA connections

## PCB details

PCB designed with KiCad 7.0.2 for OSH Park 4 layer stackup.

Inrush resistors (R4-R9) are optional.

Activity LED implementation does not currently work. ~~If you don't want activity LEDs, then R1-R3, Q1-Q3 and D1-D3 connectors can be omitted.~~

~~PCB can be purchased from my Tindie store at <https://www.tindie.com/stores/tagno25/> or from OSHPark~~

## BoM

- CN1,CN2, CN3: Molex 0678008025  
~~D1, D2, D3: 2mm x 5mm x 7mm LED~~ J1: TE 350543-1 M1:  
Molex 0470531000 P1, P2, P3: TE 1735397-1 (or compatible) ~~Q1,  
Q2, Q3: onsemi BC847BLT1G~~ ~~R1, R2, R3: 0805/2012M LED  
resistor~~ R4, R5, R6, R7, R8, R9: 0805/2012M Inrush limiting

## Changelog

## PCB Revision 2: Un-tested

- Shrink PCB to prevent interference with Back/Base screws
- Remove unused mounting holes
- Move PWM input location
- fix hole size and position of SATA (drive) mechanical support pins
- Move SATA (computer) closer to edge of PCB
- Added pin for fan tach output

## PCB Revision 3: TODO

- Fix activity LEDs
- Add solder jumper pads for inrush resistors

Category: Computer

## This remix is based on



### 2 Bay, 3 Slots, HDD Hot swap Case

by shaztech

## Model files



**base-v12-led.stl**



**back\_plane-insets.stl**

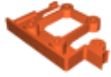


**base-v12-insets-led.stl**



**back\_plane.stl**

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**back\_cover.stl**

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**back\_plane.scad**

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**back\_cover-insets.stl**

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**back\_cover.scad**

## Other files



**sata\_backplane.kicad.zip**

☐ KiCad files V2

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

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