



## Fume extractor with common 120mm computer fan

H Honghong

[VIEW IN BROWSER](#)

updated 26. 7. 2021 | published 25. 7. 2021

### Summary

I make this Fume Extractor with our extra PC fan. I can extract the fume well within 10cm. And it is quiet.

[Hobby & Makers](#) > [Tools](#)

Tags: [fumeextractor](#)

We didn't bring our fume extractor. And it take a long time for us to consider what is suitable for the workbench. Since it still need to take more time to select a nice commercial one. How about just build one for minimum requirement for current need with the materials I can find in our office. So it comes out this one is not too bad. It can extract the fume within 5~10cm.

parts

1. 120mm X 120 mm 12V PC cooler fan (we just have extra one in office)
2. screw nuts and M3 screws for assemble
3. led strips for working, I mount the 5v led strip and it is ok. but later I just solder some 3528 warm white leds plus resistors on the perfboard and adjust its power input to meet the same 12V DC power.

4. 12 DC power supply (if I have time, I can try to dig the unsorted components bags to find the dc/dc boost chips to build a board to boost 5V to 12V in the future. )
5. carbon filter (I use the one I got in the DIY market which is 1mm thickness big sheet, and I cut them in to 2 pieces to make it thicker for the filter)

### 3d printing parts

1 pc fan frame.stl -- required

1 pc filter spacer.stl --required

1pc fan stand (R)--required

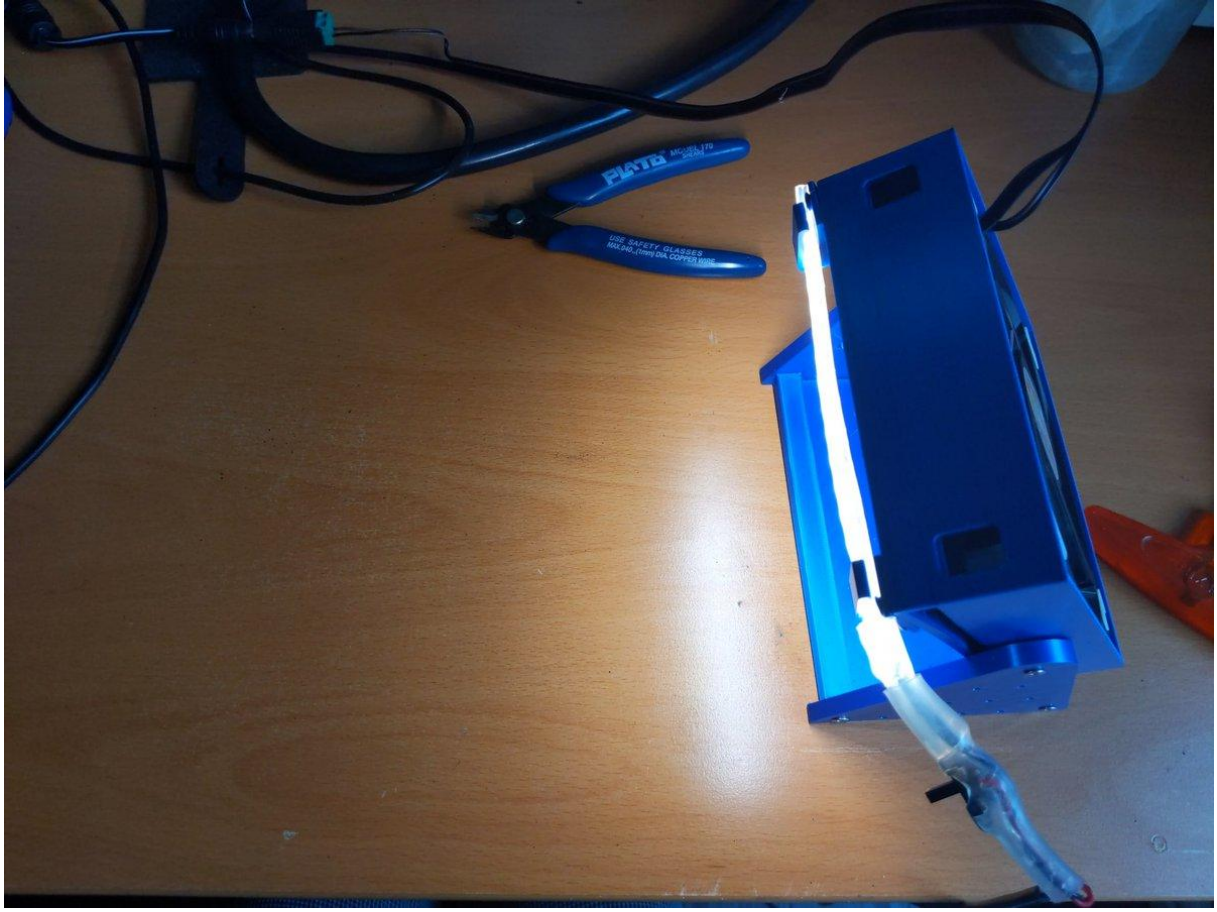
1pc fan stand (L)--required

1pc stand bottom(Bot) --required

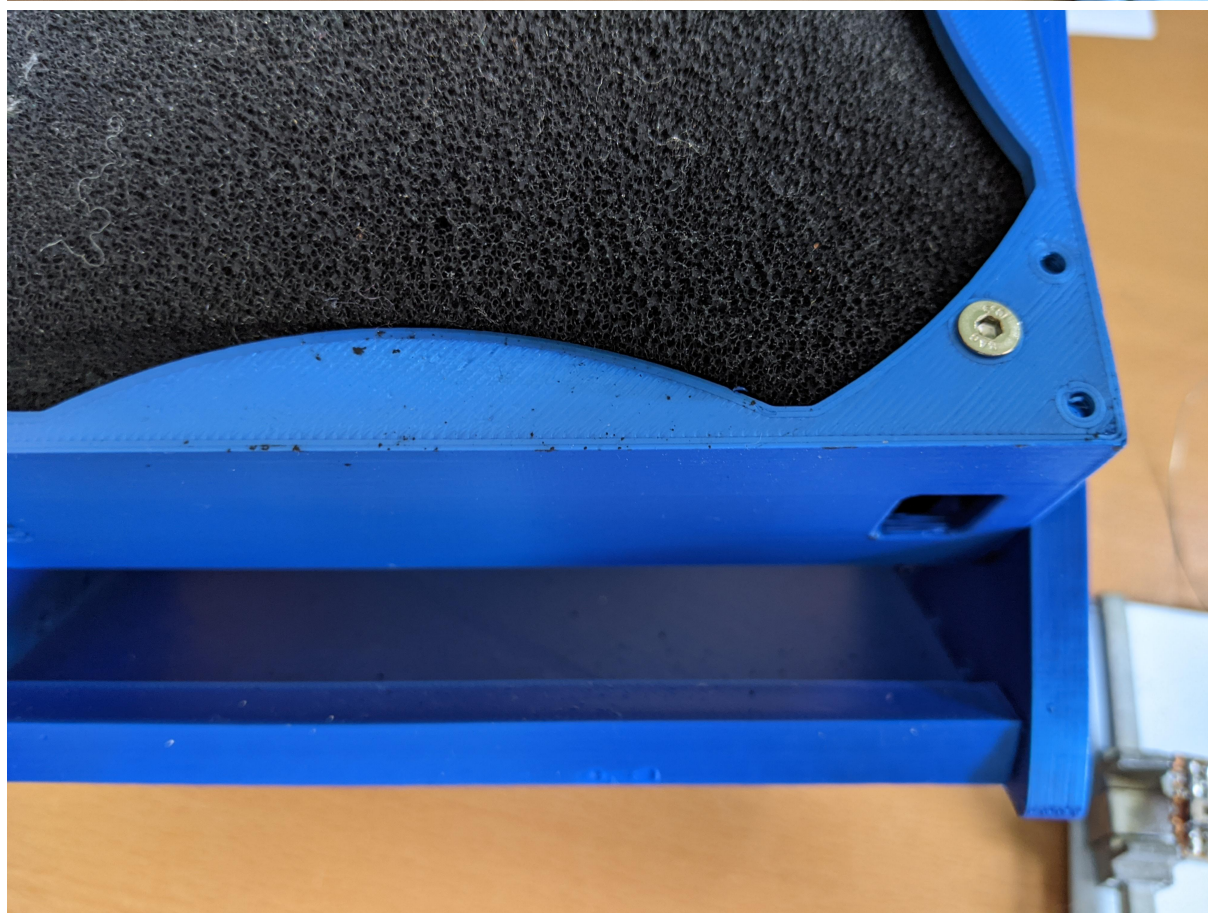
1pc led strip holder-R --optional, if you don't need to mount the led, can skip it

1pc led strip holder-L --optional, if you don't need to mount the led, can skip it

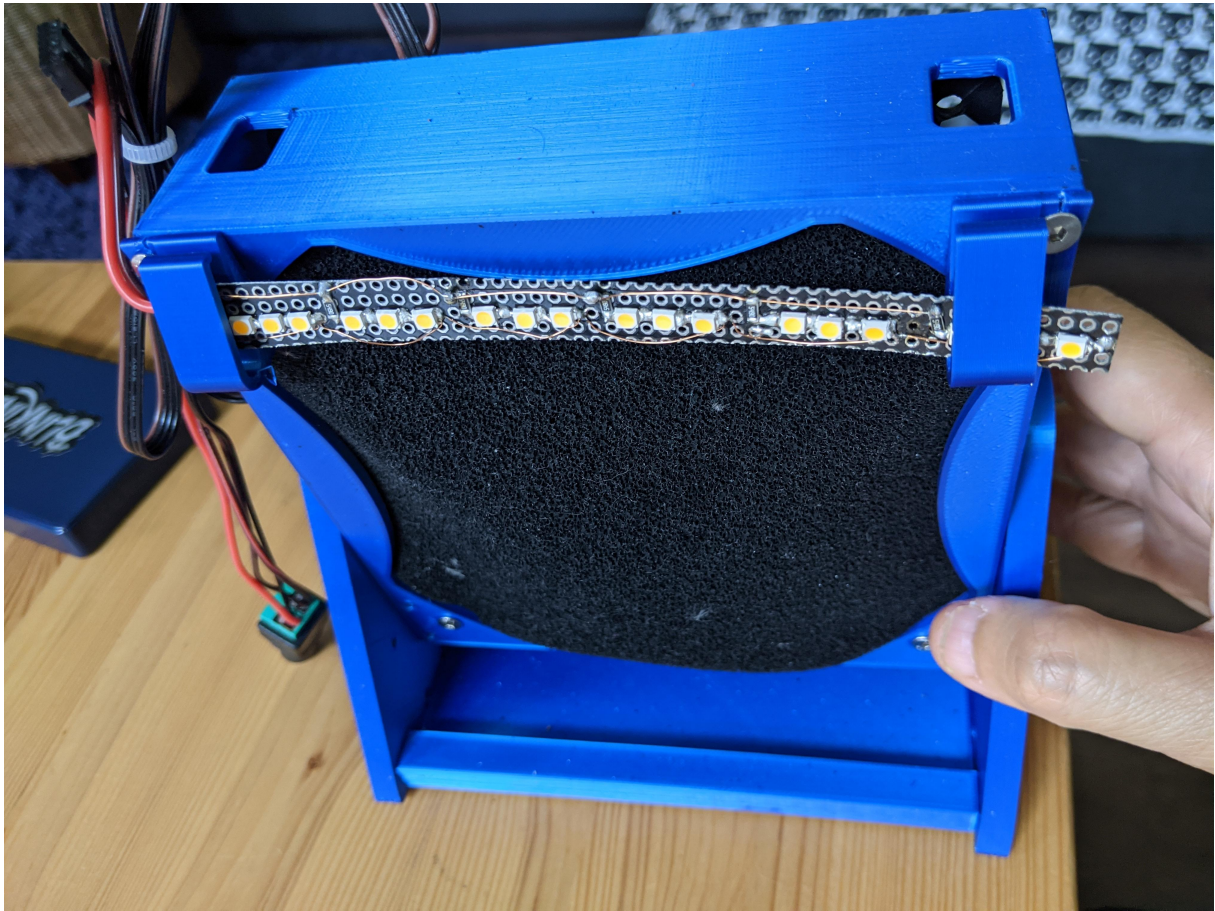
some cable holders--optional, if you don't need to hold the cables, can skip it. it is a little too small for my fan, so i skip it. There are holes on the fan stands, it is easy for me to mount convert pcb or others in the future.











## Model files



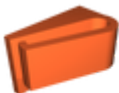
**fan-frame.stl**



**led-strip-holder-r.stl**



**cable-holder.stl**



**led-strip-holder-l.stl**



**filter-spacer.stl**

---



**stand-bottombot.stl**

---



**fan-stand-r.stl**

---



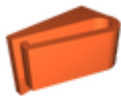
**fan-standl.stl**

---



**fan-stand-v3.step**

---



**led-strip-holder-l.stl**

## License ©

This work is licensed under a  
[Creative Commons \(4.0 International License\)](https://creativecommons.org/licenses/by/4.0/)



### Attribution

---

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✓ | Commercial Use
- ✓ | Free Cultural Works
- ✓ | Meets Open Definition

