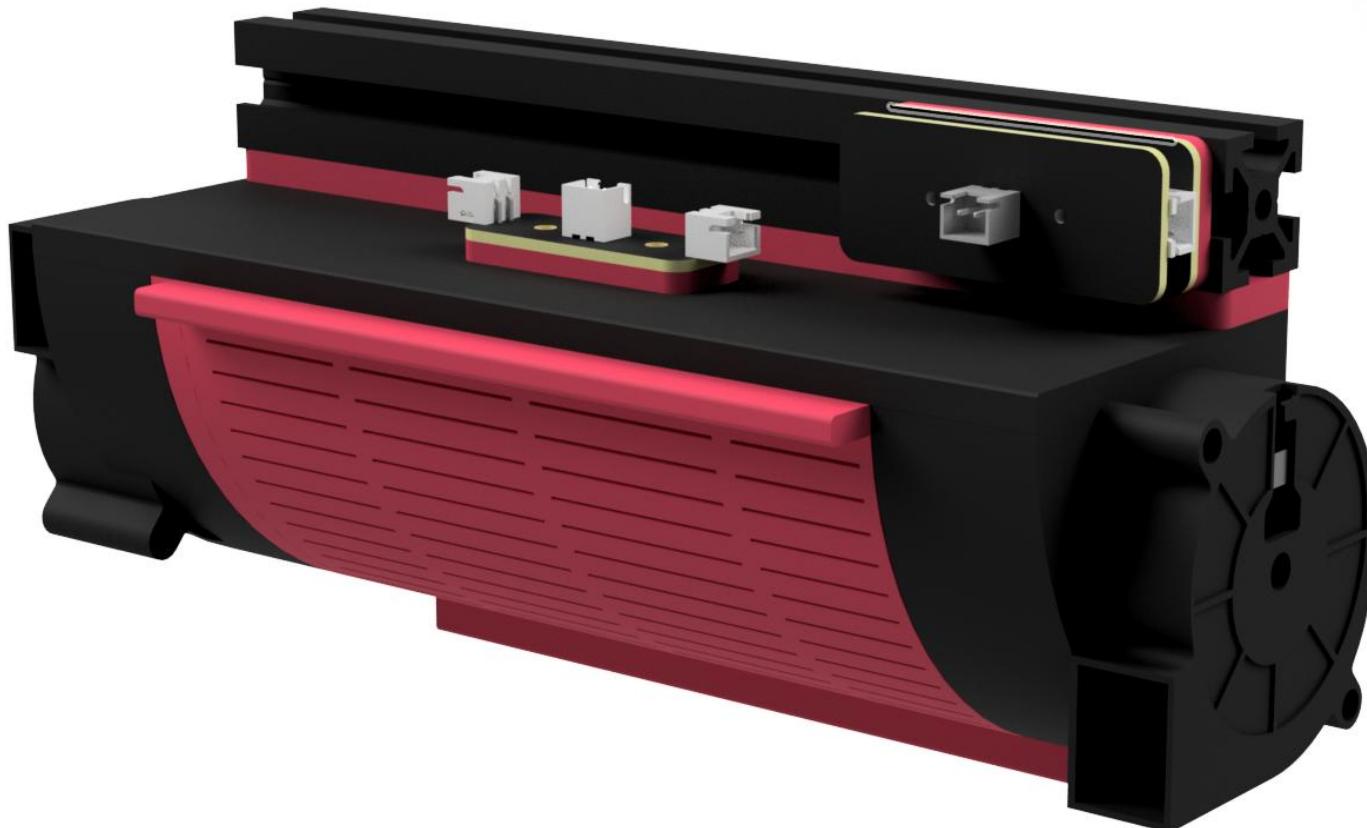




Selead Lab

EcoAir

3D Printer Internal Circulation Air Purifier





Before you begin on your journey, a word of caution.
This machine can maim, burn, and electrocute you if you are not careful.
Please do not become the first EcoLoop fatality.
Please, read the entire manual before you start assembly.
Of course, the entire process is not difficult.

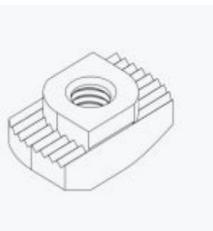


Good luck and smooth installation
Thank you again for your support

By Selead Lab Team

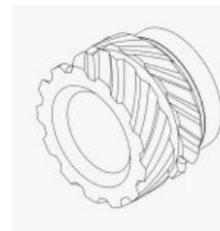


HARDWARE REFERENCE



T-Slot NUT Nut

that can be inserted into the slot of an aluminium profile. Used exclusively for panel mounting, all other components use T-Slot nuts



HEAT SET INSERT

These are made of brass , threaded on the inside and has ridges on the outside. Heat them up to approx 250C with a soldering iron and push them into the plastic. As the plastic cools, it solidifies around the knurls and ridges on the insert for excellent resistance to both torque and pull-out.



SOCKET HEAD CAP SCREW (SHCS)

Metric fastener with a cylindrical head and hex drive.



MAGNETS

These are cylinders 6mm in diameter and 3 mm tall. Shorter ones are OK, down to 2.7 mm. N52 must be used to ensure stability



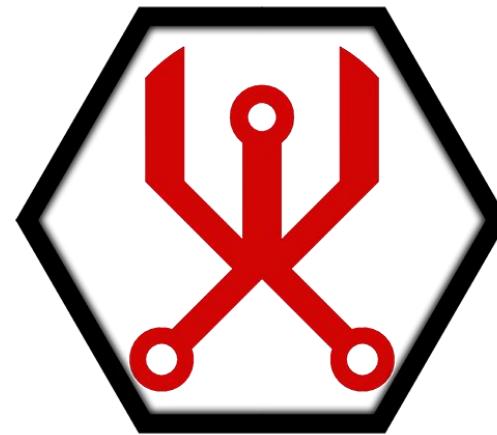
Product introduction

- While this project is mainly designed to be used on VORON printers, it can also be used (or adapted) on any 3D printer that runs Klipper
- During the printing process, it is inevitable to encounter some harmful gases or unpleasant odors.
- This product can circulate the internal air and provide excellent air purification effect when the printer is sealed for use.
- The activated carbon module adopts a magnetic suction scheme, making it easy to replace.
- The air purifier module and power interface both adopt a magnetic quick disassembly scheme, which is convenient for disassembly and maintenance at any time.
- The fan interface adopts a quick connect design, which makes it easier to replace the fan when it wears out due to long-term use.



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Purchase store link



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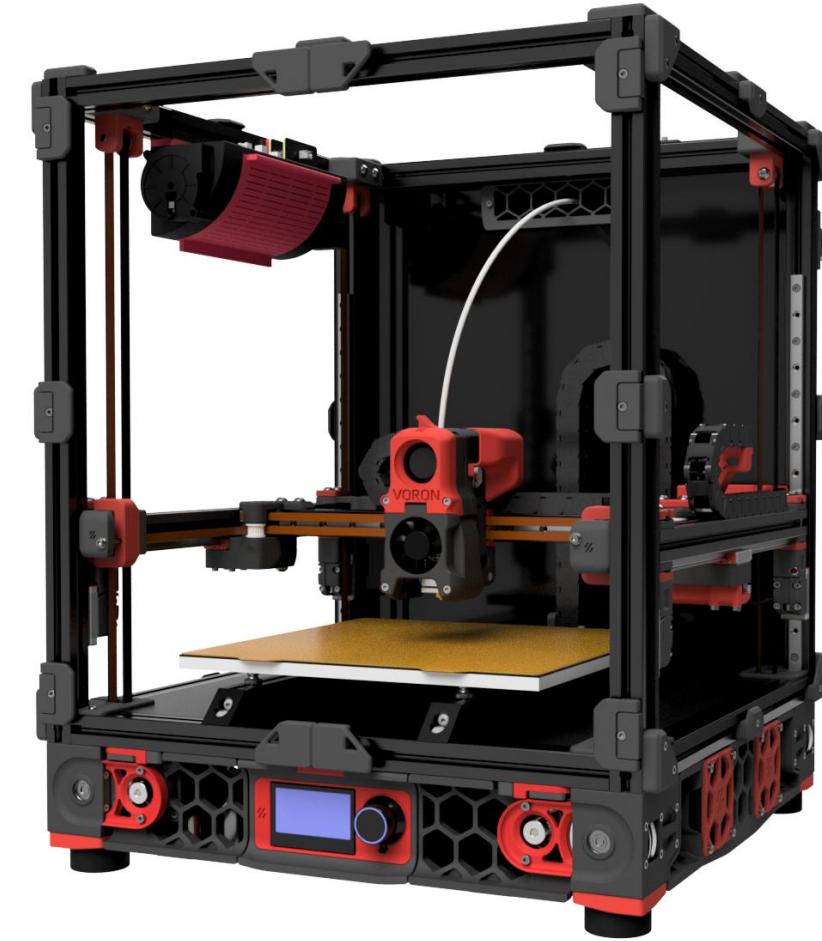
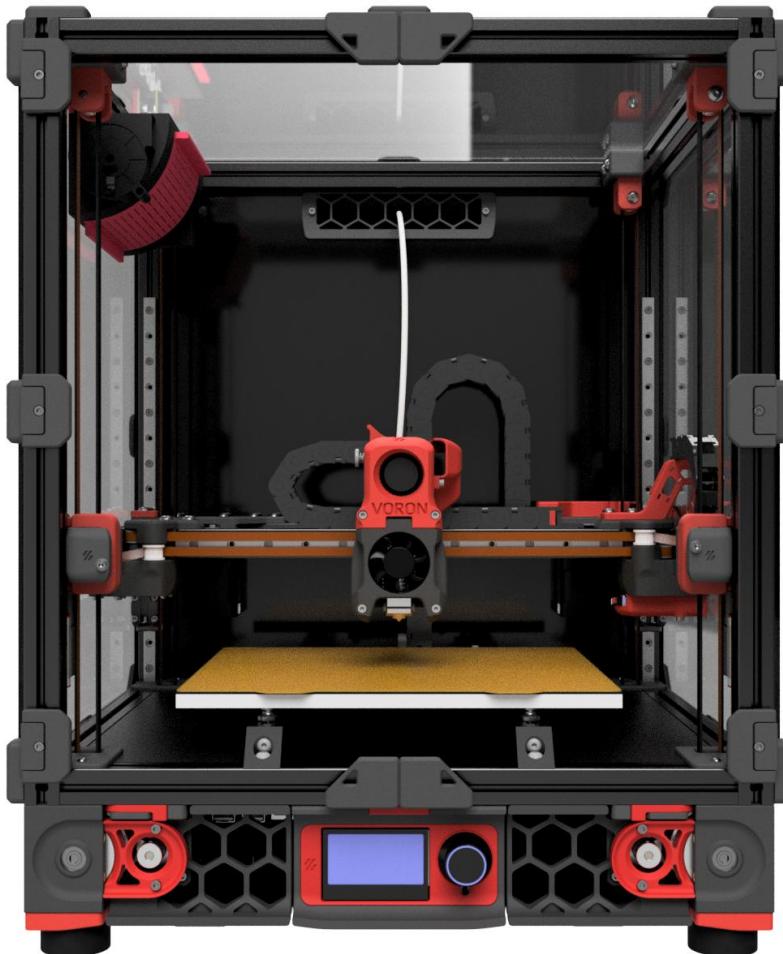
<https://seleadlab.aliexpress.com/store/1103231006>



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Overview

VORON 2.4 Installation Display Diagram

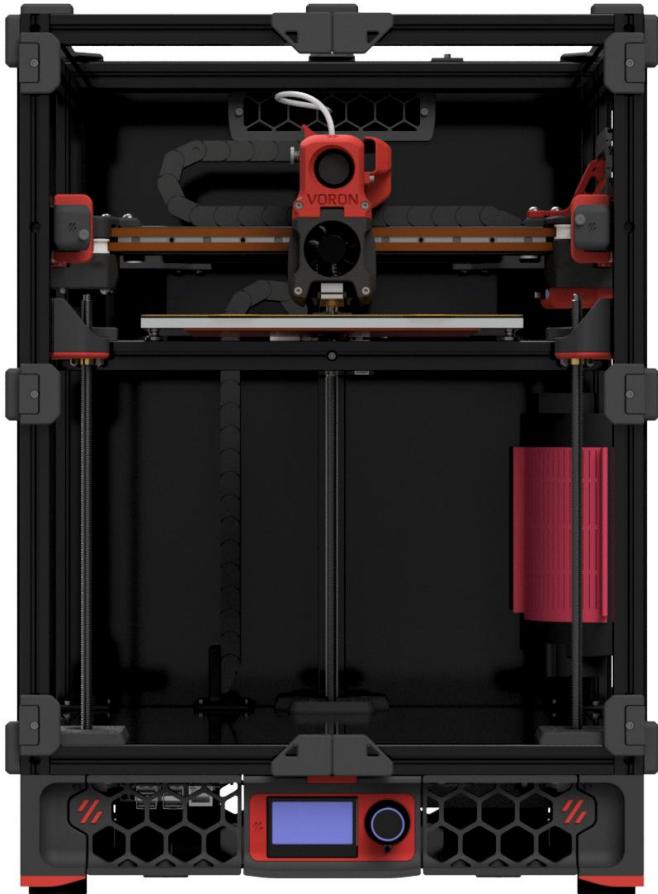




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Overview

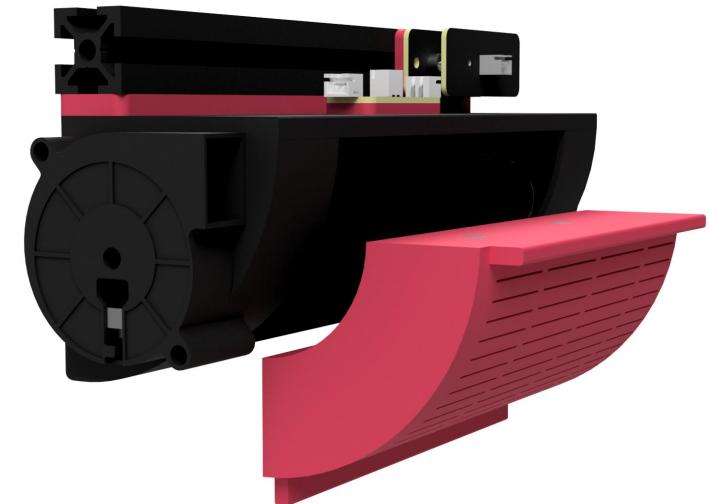
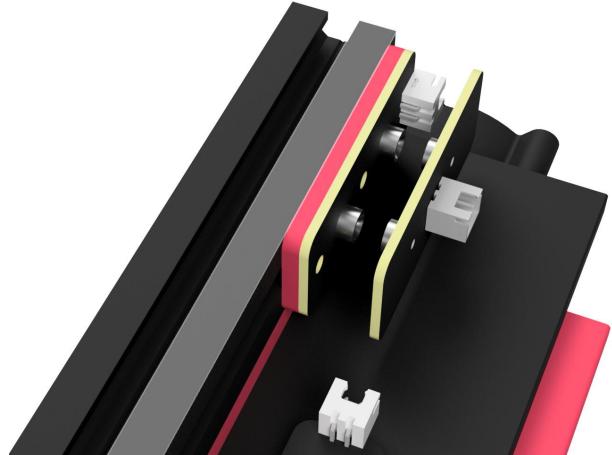
VORON Trident Installation Display Diagram





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Overview

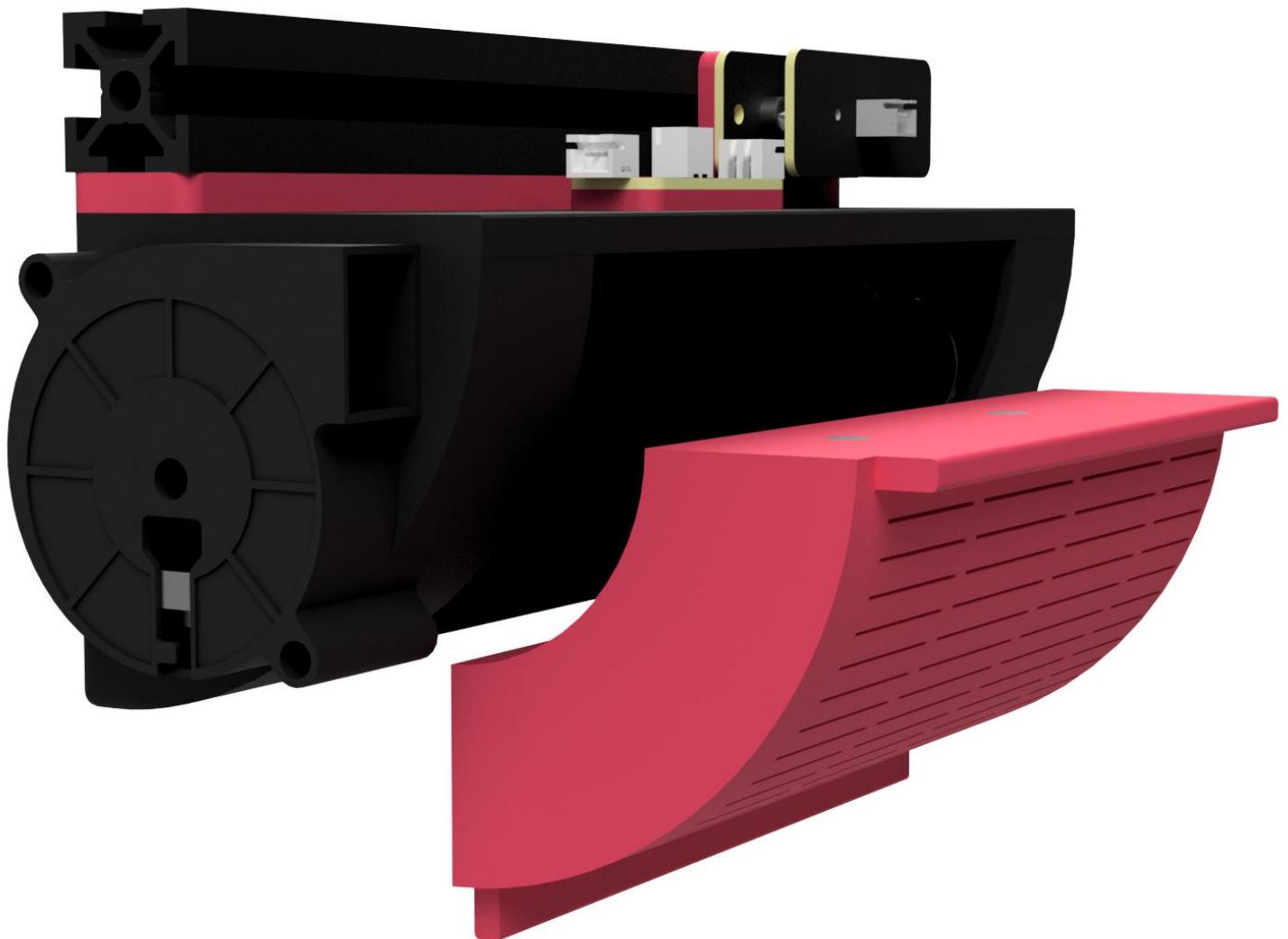




Assembly begins

Becareful:

1. The N and S of a magnet are not that important, there is no need to dwell on N and S (the existence of N and s is only to distinguish the mutual attraction and repulsion of magnets)
2. Please use the N52 or standard N52 magnet we provide to ensure strong suction, otherwise there may be losses caused by the air purifier falling during use.
3. Be careful not to burn when installing hot melt nuts



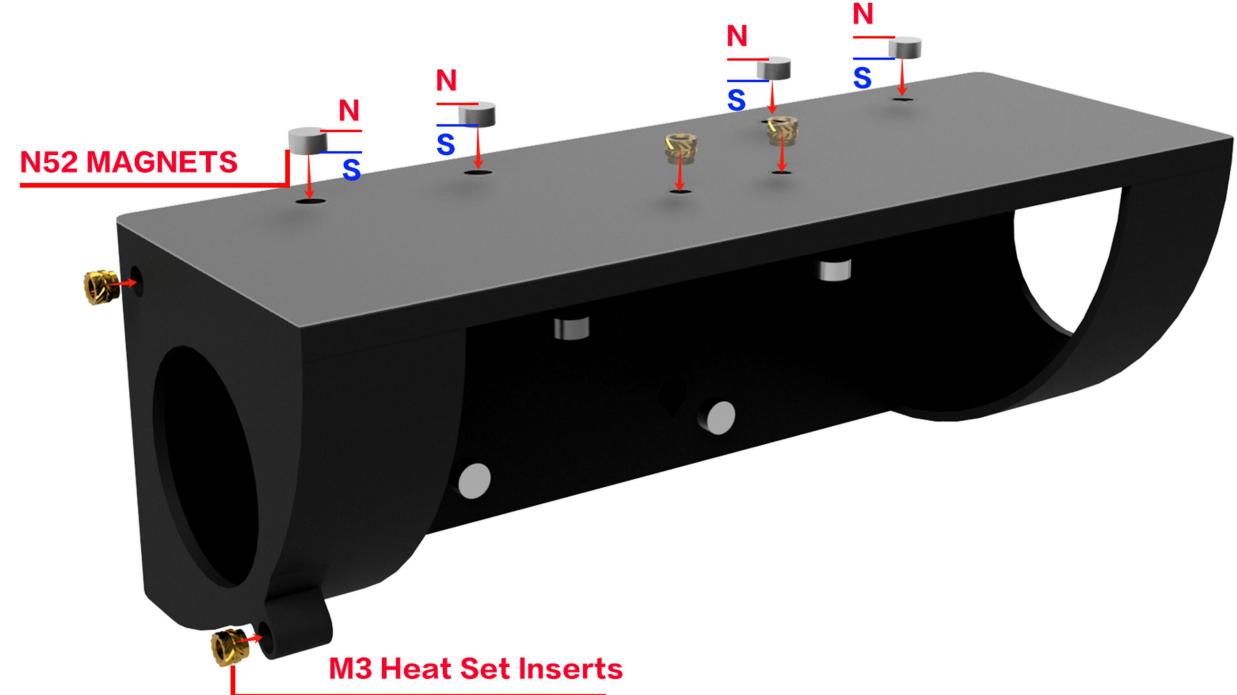


Next, let's get started!



Step 1: Insert the main body into the magnet and press in the hot melt nut

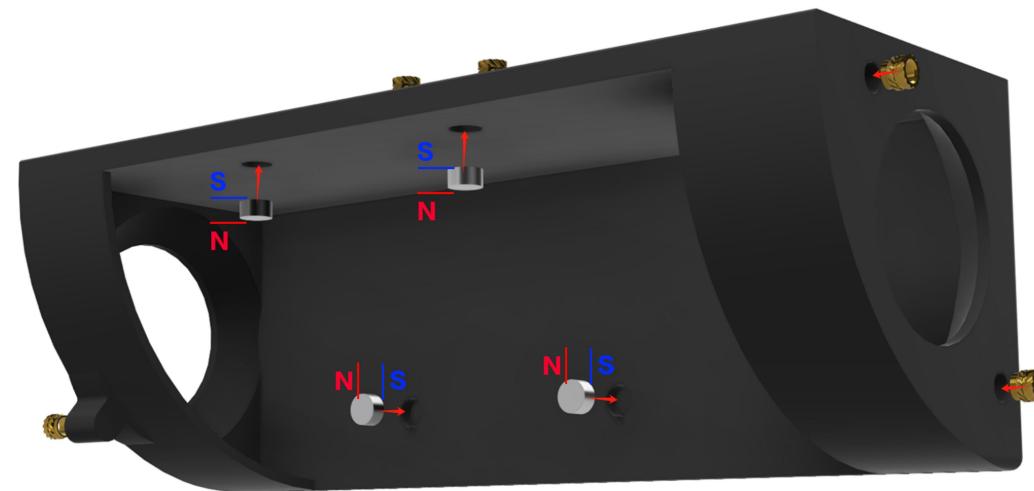
In this step, 8 magnets and 6 hot melt nuts will be used.

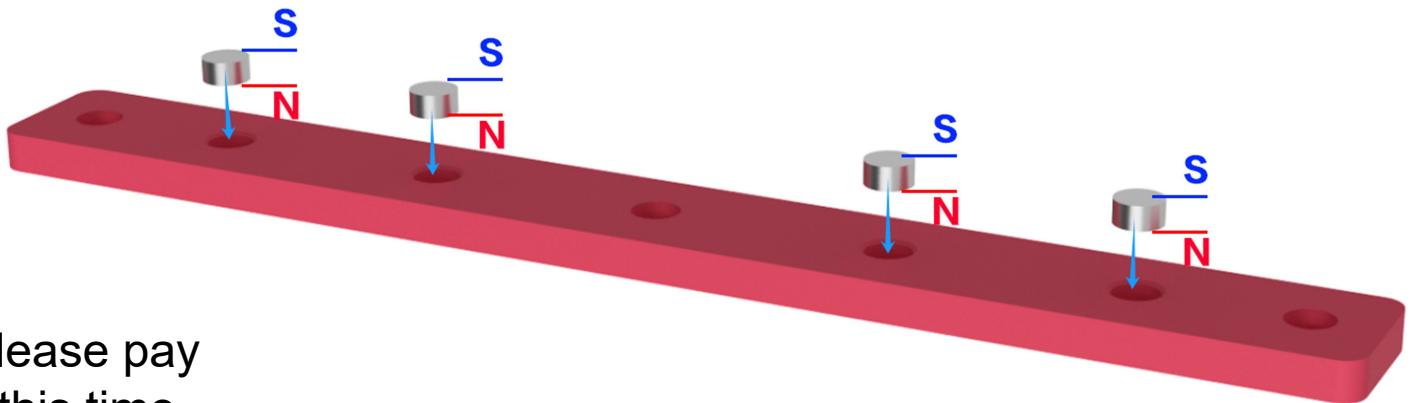


Attention:

Be sure to pay attention to the installation direction of the magnet to ensure smooth progress in the following steps

(the magnet of this part cannot be removed after being pressed in)



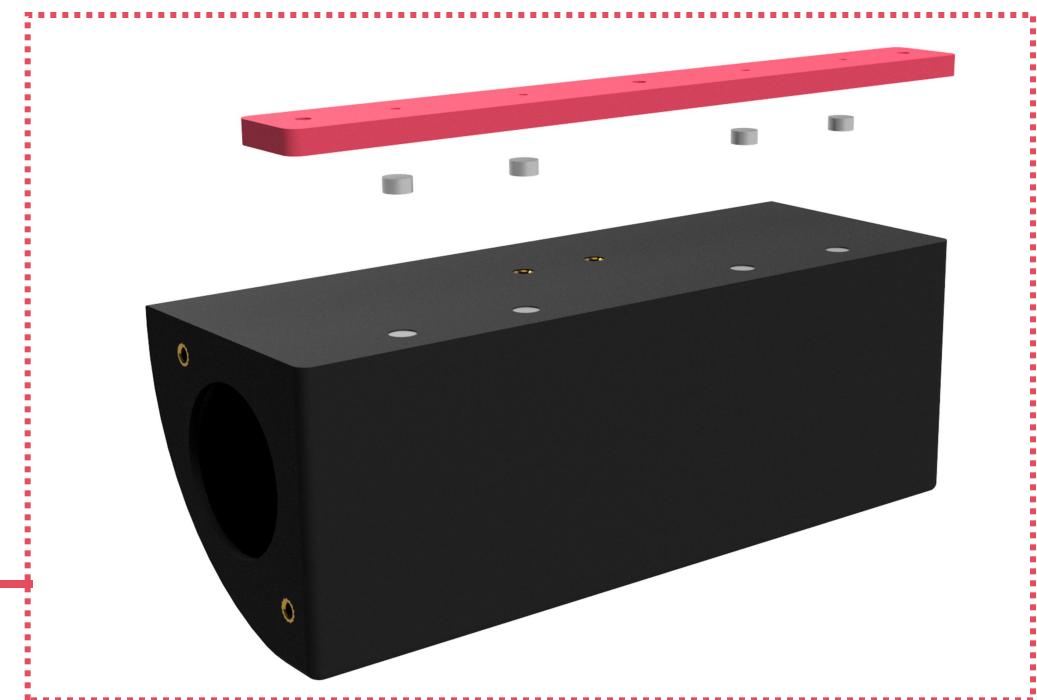


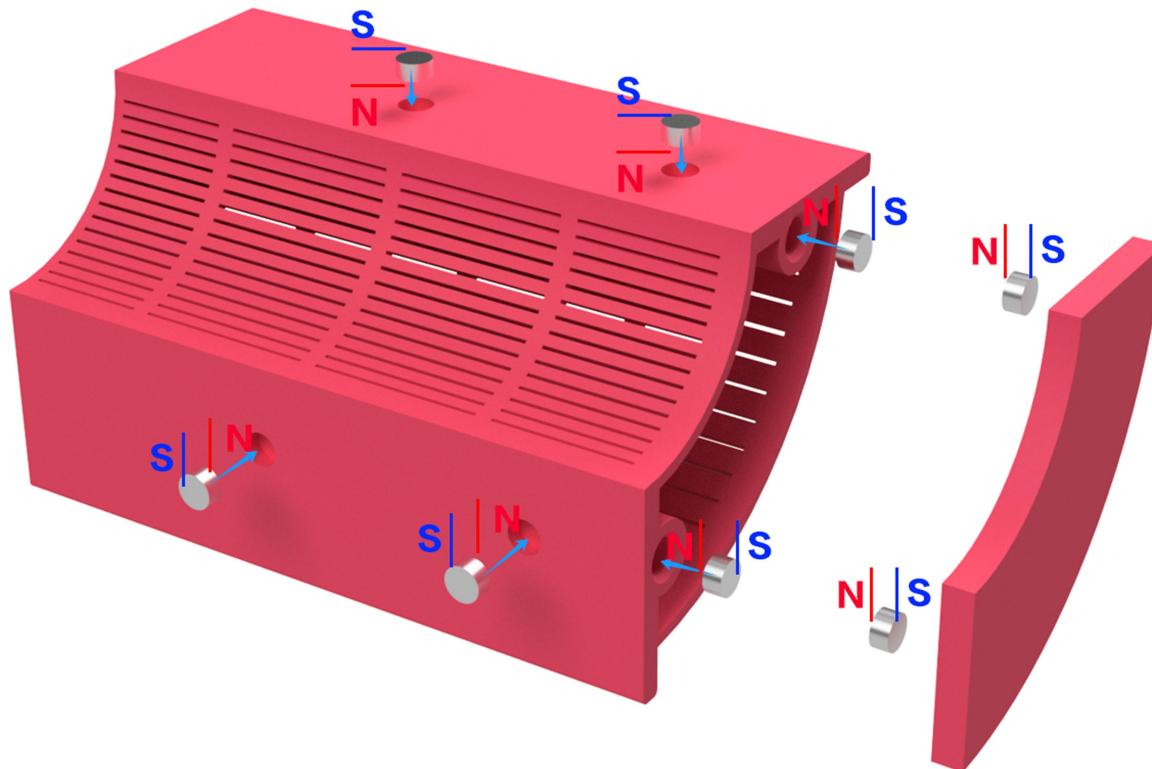
Step 2: Press N52 magnet into the part, please pay attention to the direction of the magnet at this time.

In this step, 4* N52 magnets are required.

Attention:

As shown in the figure, after the part is pressed into the magnet, it can tightly adhere to the main body of the previous step.

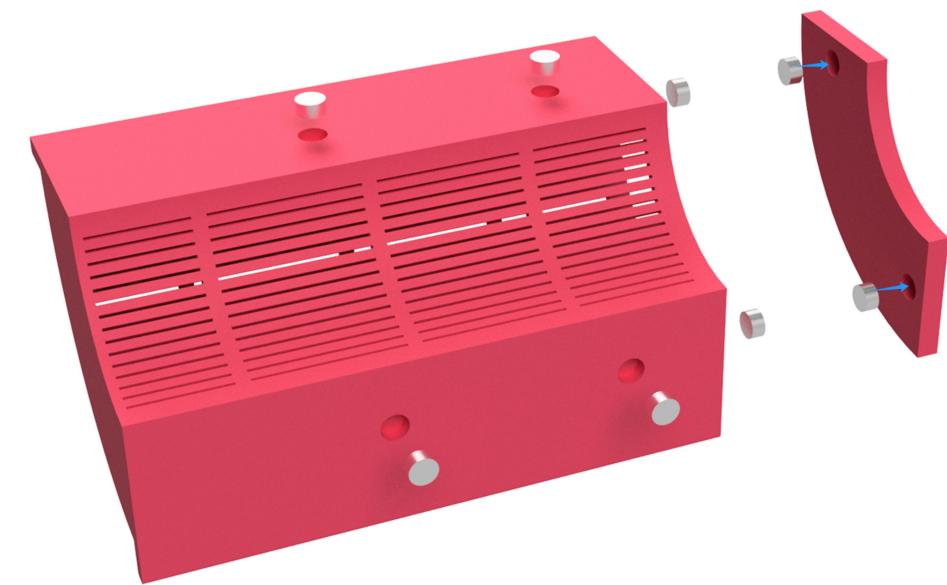




Step 3: Assemble the activated carbon purification box.

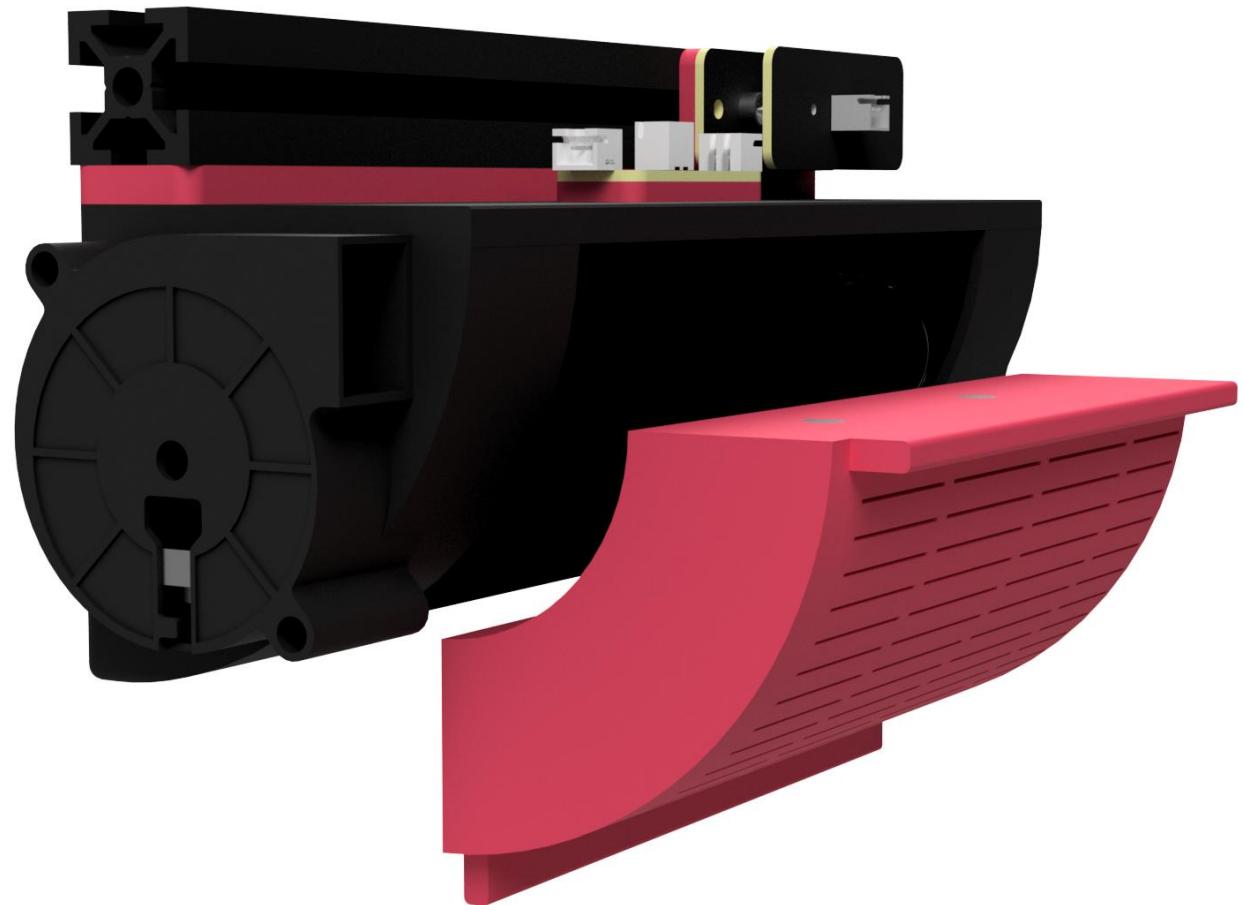
In this step, 8* N52 magnets are required. As before, please pay attention to the installation direction of the magnet.

After installation, please ensure that the cover can be properly attached. And pour activated carbon into the box.





Note that after installation,
ensure that it can be correctly
installed inside the main body
and that the magnet is tightly
attached.





Step 4: Install the purifier fan

Use 2* 24V 5015 Blower Fan, installed on the left and right sides of the purifier, and fixed with M3 × 20SHCS

In this step, 4* M3 × 20 SHCS will be used. Please pay attention to the installation direction of the fan.





Step 5:

Install the assembled parts from Step 2 onto the 2020 aluminum profile corresponding to the position of the printer.

In this step, 3* M3 × 8 SHCS and 3* M3 T-Slot nuts are required

Note:

The installation location of different printers is not the same. Voron2.4 is installed on the upper left side of the printer, while Voron Trident is installed on the rear right side of the printer.

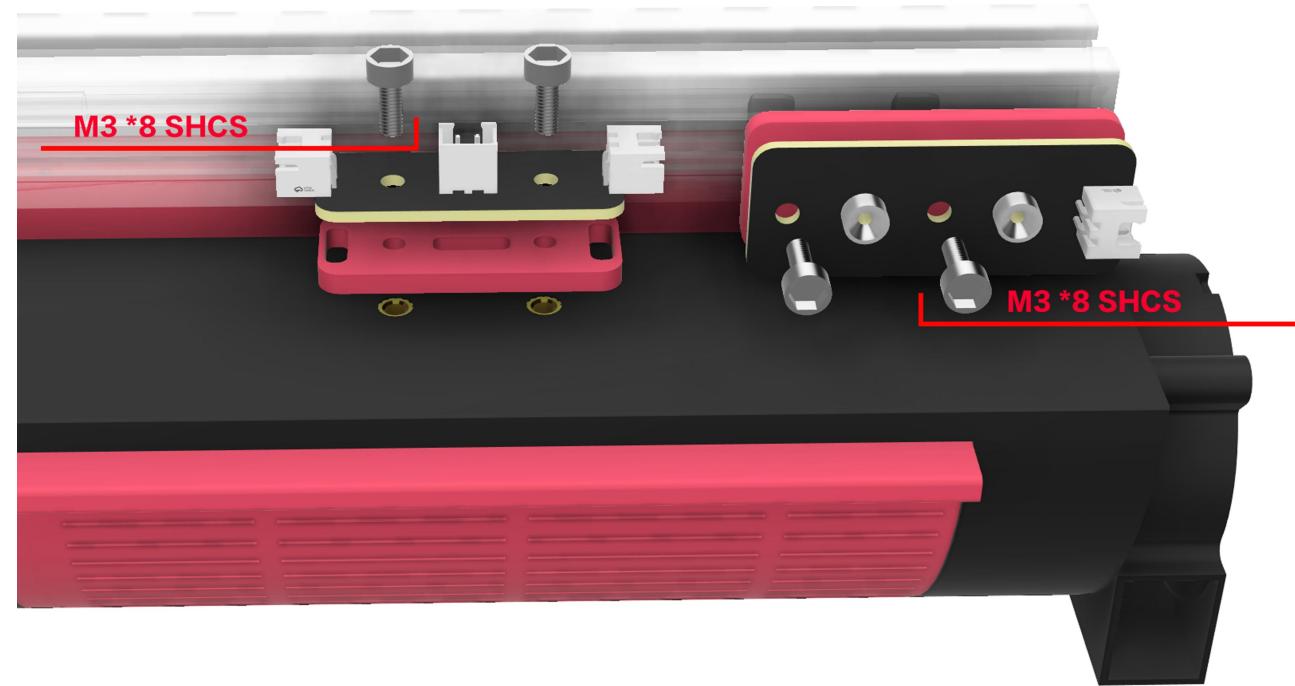
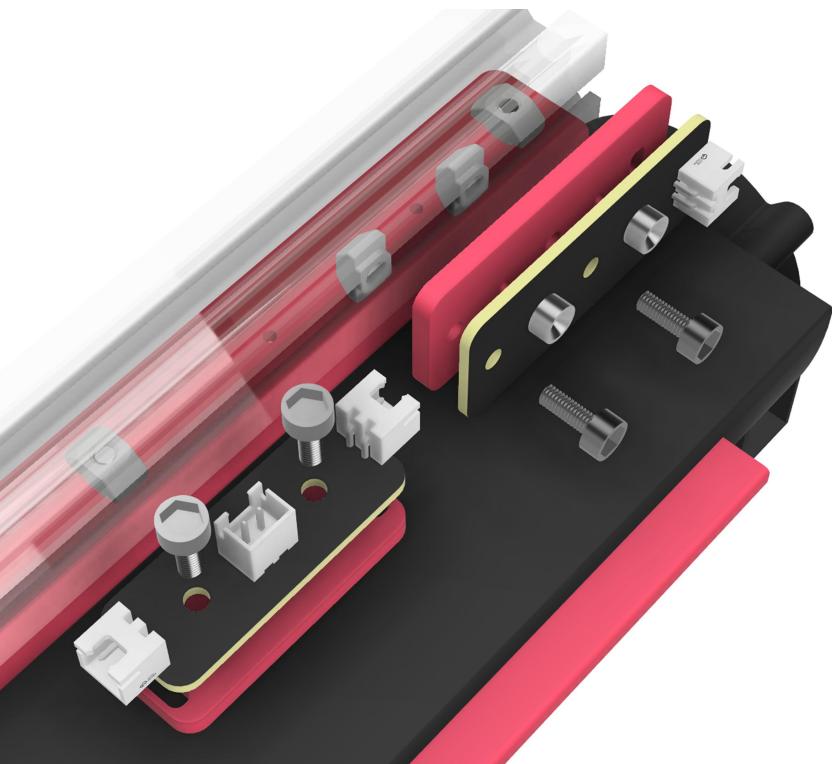
For other printer models, you need to find the installation location yourself, but please note that the printer will not collide with the purifier during normal use to avoid damage.



Step 6: Install PCB module

As shown in the figure, select the corresponding PCB and 3D printed gasket, install them in sequence on the 2020 aluminum profile and main body, and fix them with M3 × 8 SHCS

In this step, four M3 × 8 SHCS will be used.



Of course, the PCB can be installed together with the main body during the second step.

Attention:

It is necessary to install 3D printing pads, otherwise there will be a short circuit in the circuit, which may cause your economic losses

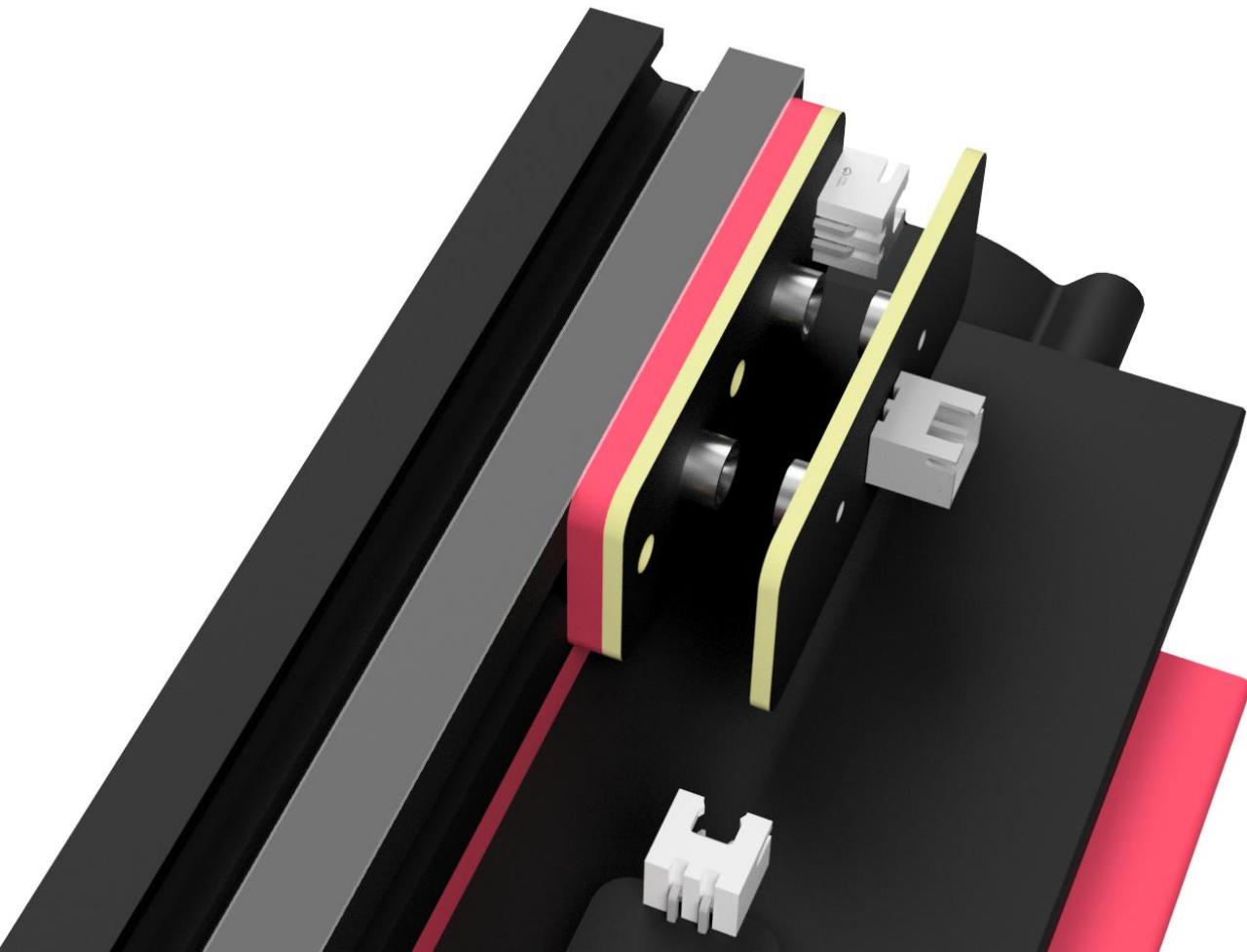


The assembly part has been completed

The next steps will start with connecting the circuit



Four magnets are used in the PCB quick release module to connect Gnd and VCC. When you receive it, the PCB module has been basically assembled and you only need to make a small amount of wiring, but please pay attention to the characters on the module and the wiring method.



Please note that :

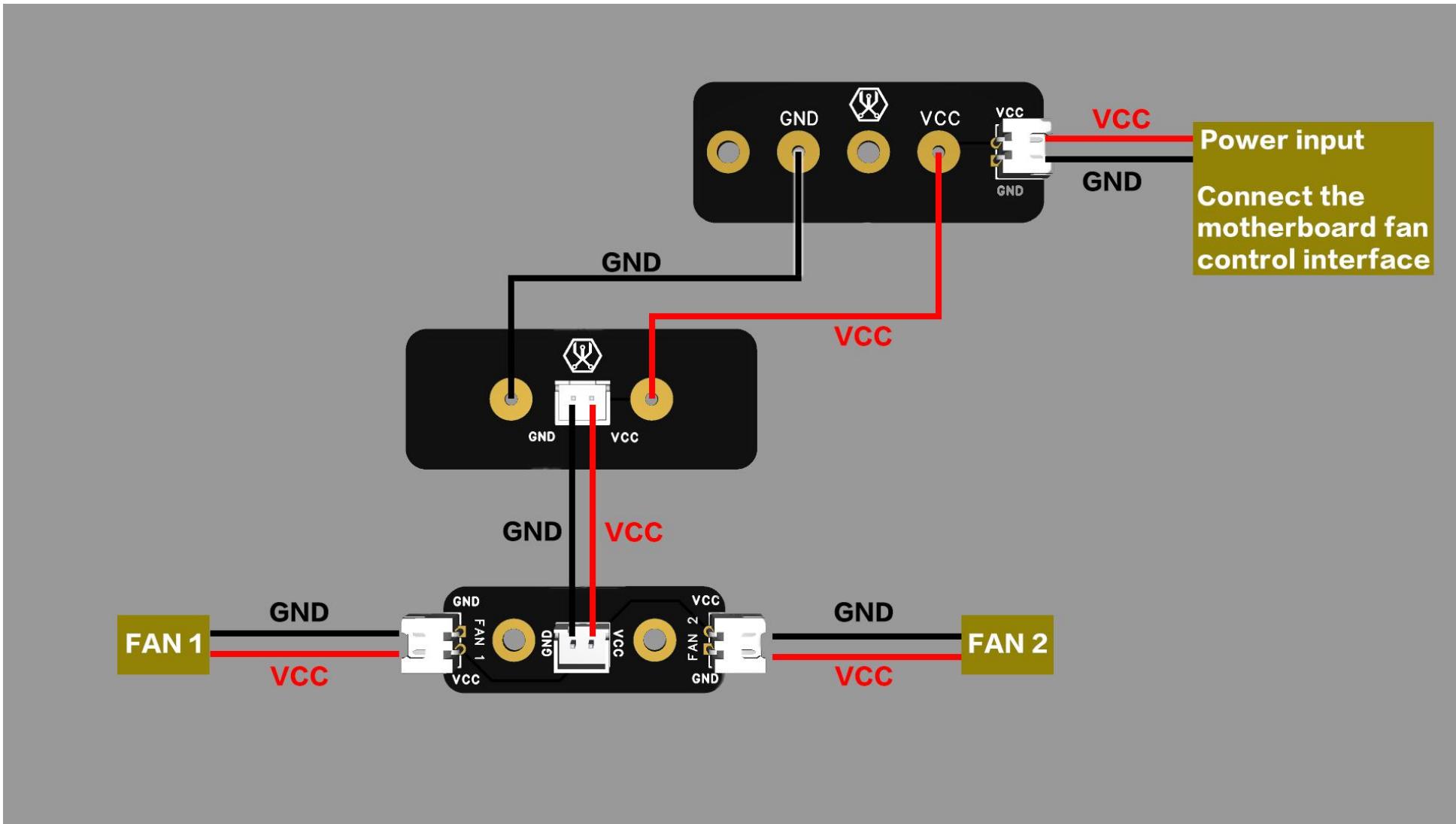
The magnetic poles of the magnet are not consistent, so during installation, the magnet will limit the installation direction of the PCB to reduce the occurrence of VCC and GND reverse connection.

Warning:

This module is not recommended to be installed or removed while the printer is powered on. Please turn off the printer before disassembling the purifier module. Even if different magnetic poles are used in the design to avoid reverse connection between GND and VCC, please ensure that the module is installed properly before powering on the printer. To prevent accidents from happening.



Circuit connection diagram





Selead Lab

After the circuit installation is completed, congratulations that the EcoAir has been assembled.

Enjoy the fresh air brought by the purifier.

Thank you for your support. If you have any questions, please feel free to contact us at any time in our store.

The Selead lab team would like to express their gratitude once again to you.



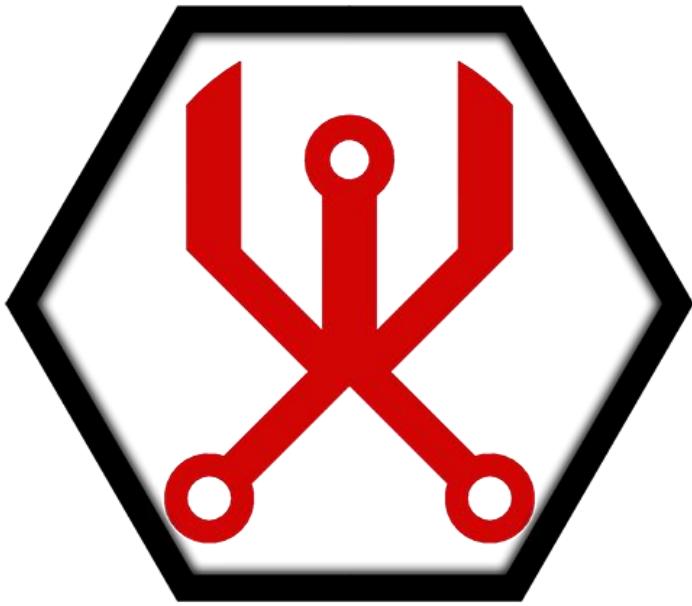
Of course.

If you encounter any problems.

You can also contact us on Discord and we will provide you with timely support.



<https://discord.gg/zaKZaP5U>



Thank you for your support.

Goodbye