

Please make sure that your heating bed is in line with the voltage of your country or region. The high voltage version will heat very slowly when used at low voltage and may not reach the target temperature. The low-voltage version is used in the high-voltage version to heat up quickly, even exceeding the temperature you set, which is very dangerous.



**HOT SURFACE
DO NOT TOUCH**

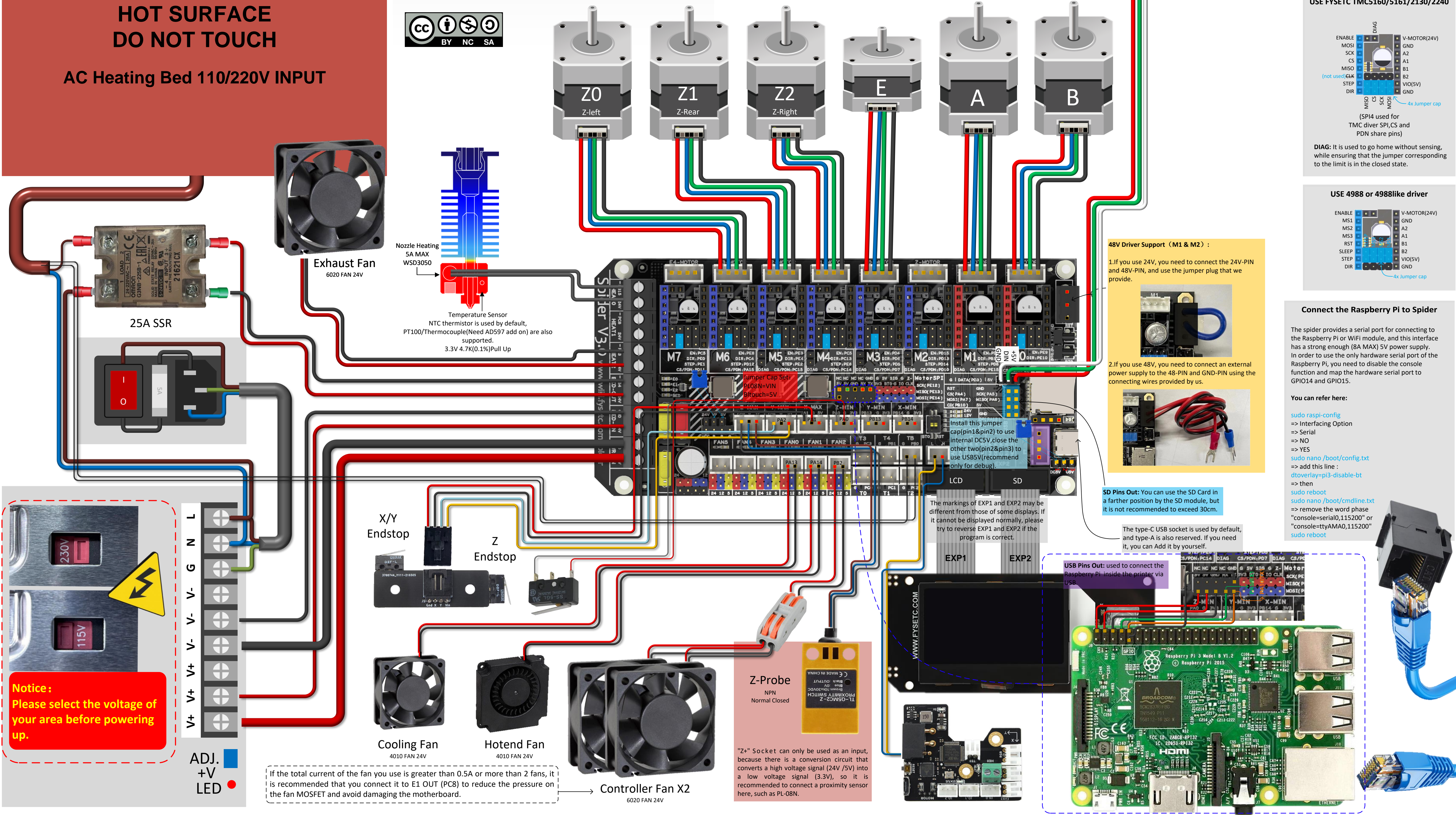
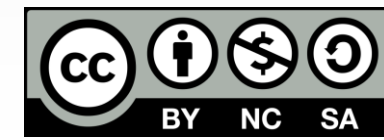
AC Heating Bed 110/220V INPUT

Spider V3.0

Wiring diagram For Voron Trident

— By Eli Wong

For more board information, please refer to
<https://wiki.fysetc.com/Spider/>
Or
<https://github.com/FYSETC/FYSETC-SPIDER>

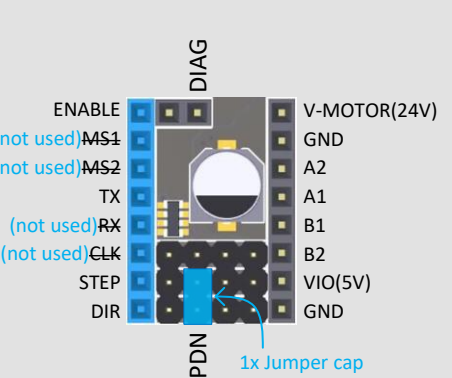


Notice:

The power of each WS2812/SK6812 lamp bead is 0.3W. If the main board is used for direct power supply, please do not exceed 30 lamp beads, otherwise the main board power supply will be unstable.

If you need to use a long light bar (more than 30 lamp beads), it is recommended to use an additional 5V power supply, such as AC-DC power supply meanwell RS-25-5 (25W) or DC-DC power supply Daygreen B10-1224-05 (50W). A 25W power supply can drive about 80 lamp beads, and a 50W power supply can drive about 165 lamp beads.

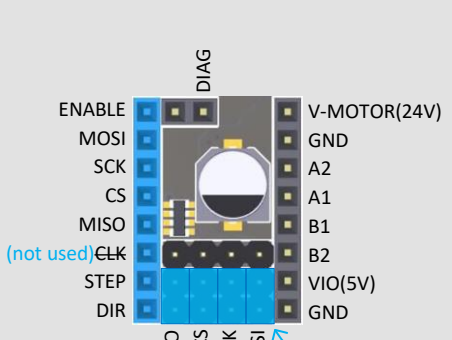
USE FYSETC TMC 2209 V3.1



PDN: It is connected to TX for communication between TMC and MCU, using single wire. The jumper cap shown in the figure must be setted before the drive module install.

DIAG: It is used to go home without sensing, while ensuring that the jumper corresponding to the limit is in the closed state.

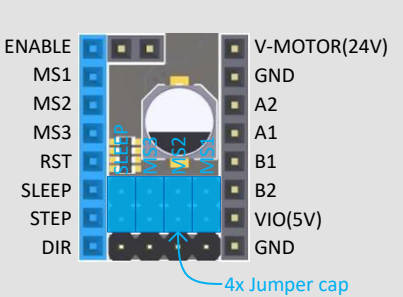
USE FYSETC TMC5160/5161/2130/2240



(SPI4 used for TMC driver SPI, CS and PDN share pins)

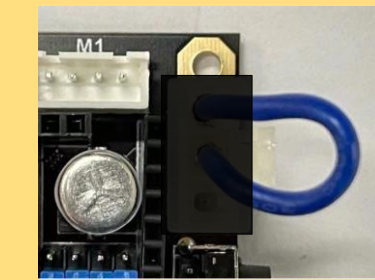
DIAG: It is used to go home without sensing, while ensuring that the jumper corresponding to the limit is in the closed state.

USE 4988 or 4988like driver

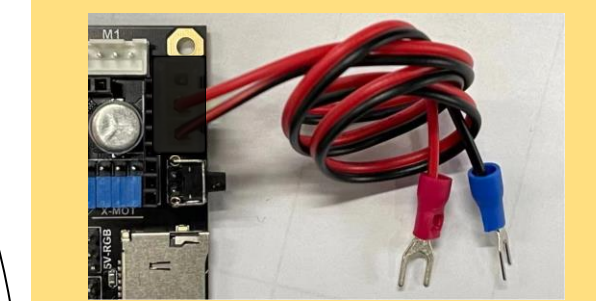


48V Driver Support (M1 & M2):

1.If you use 24V, you need to connect the 24V-PIN and 48V-PIN, and use the jumper plug that we provide.



2.If you use 48V, you need to connect an external power supply to the 48-PIN and GND-PIN using the connecting wires provided by us.



SD Pins Out: You can use the SD Card in a farther position by the SD module, but it is not recommended to exceed 30cm.

The type-C USB socket is used by default, and type-A is also reserved. If you need it, you can Add it by yourself.

USB Pins Out: used to connect the Raspberry Pi inside the printer via USB.

Connect the Raspberry Pi to Spider

The spider provides a serial port for connecting to the Raspberry Pi or WiFi module, and this interface has a strong enough (8A MAX) 5V power supply. In order to use the only hardware serial port of the Raspberry Pi, you need to disable the console function and map the hardware serial port to GPIO14 and GPIO15.

You can refer here:

```
sudo raspi-config
=> Interfacing Option
=> Serial
=> NO
=> YES
sudo nano /boot/config.txt
=> add this line :
dtoverlay=pi3-disable-bt
=> then
sudo reboot
sudo nano /boot/cmdline.txt
=> remove the word phase
"console=serial0,115200" or
"console=ttyAMA0,115200"
sudo reboot
```

Notice:
Please select the voltage of your area before powering up.

ADJ. +V
LED LED

If the total current of the fan you use is greater than 0.5A or more than 2 fans, it is recommended that you connect it to E1 OUT (PC8) to reduce the pressure on the fan MOSFET and avoid damaging the motherboard.

Z-Probe
NPN
Normal Closed

"Z+" Socket can only be used as an input, because there is a conversion circuit that converts a high voltage signal (24V /5V) into a low voltage signal (3.3V), so it is recommended to connect a proximity sensor here, such as PL-08N.