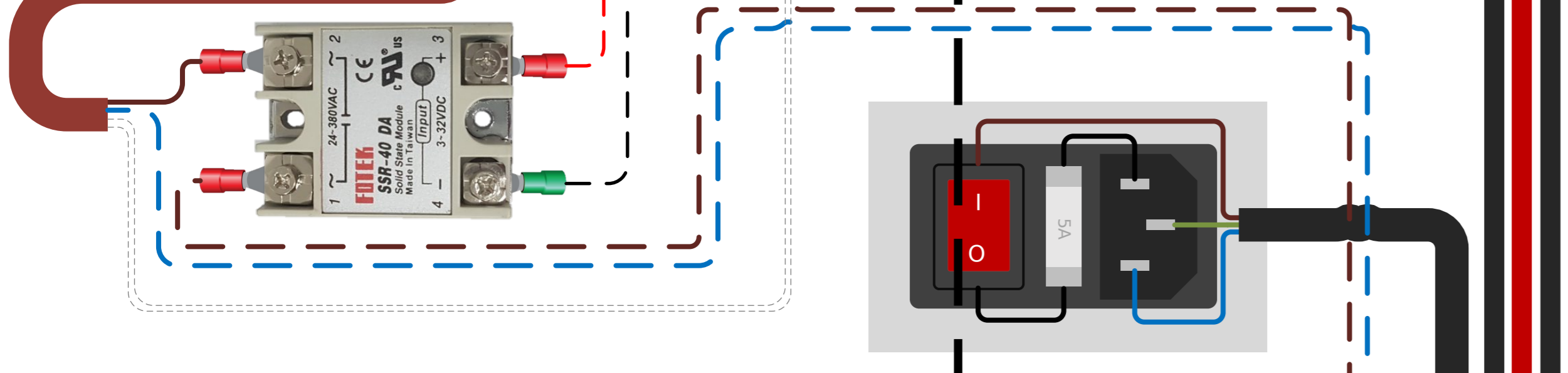
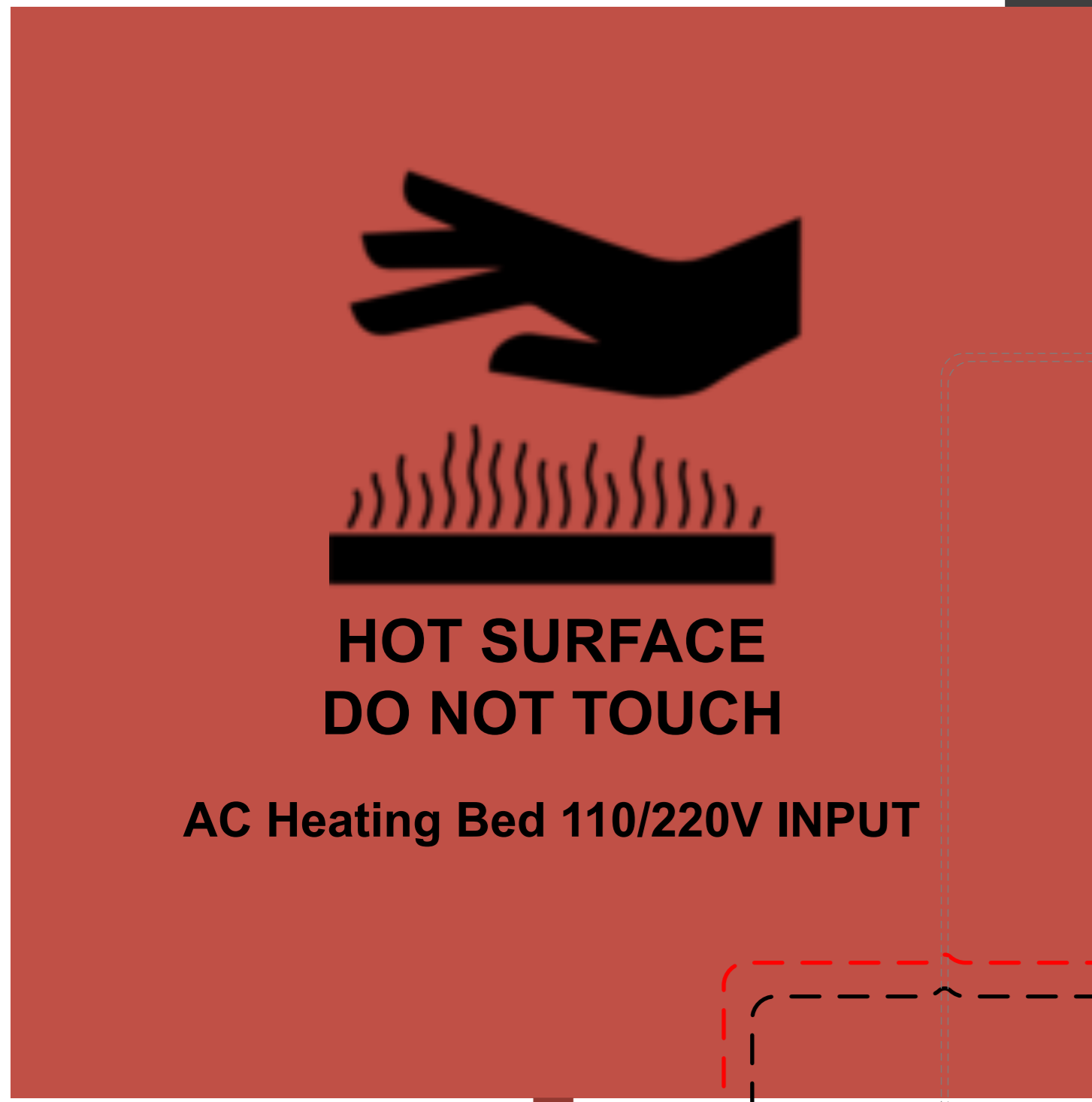


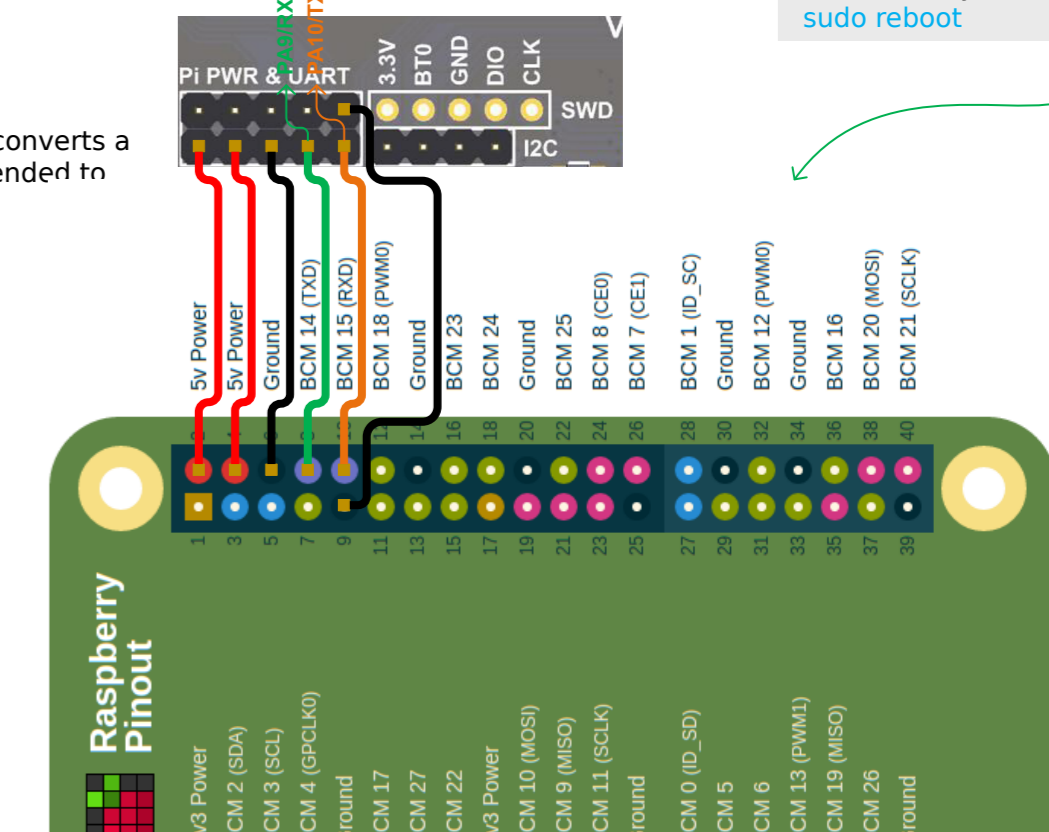
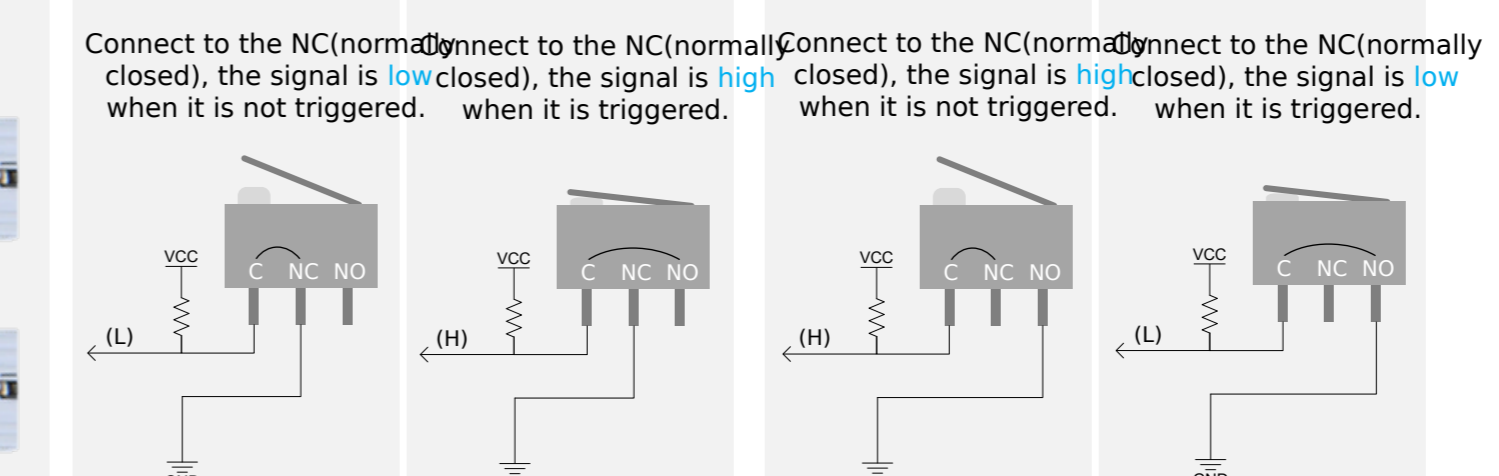
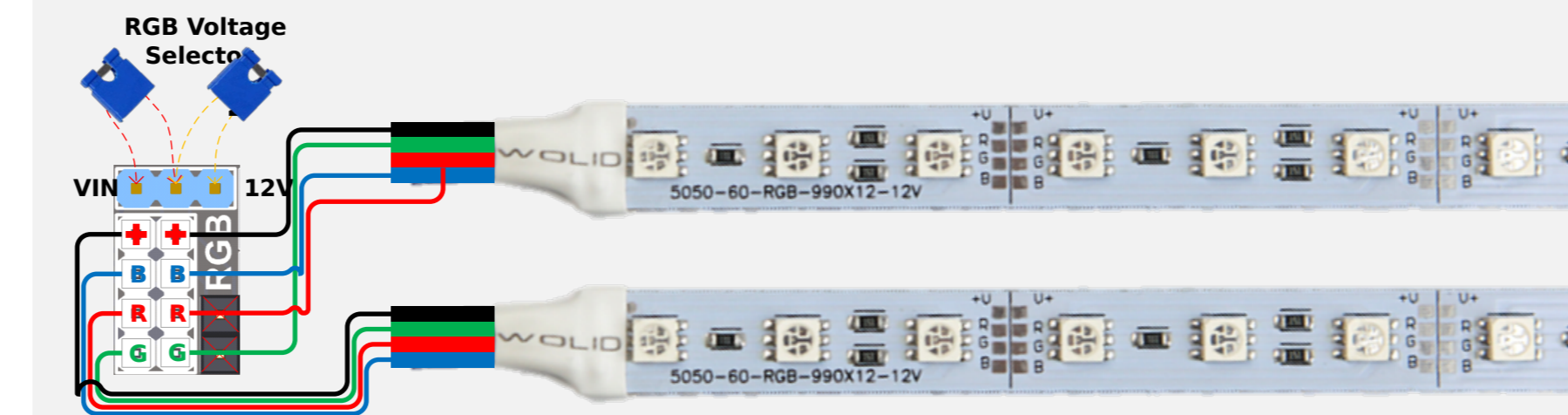
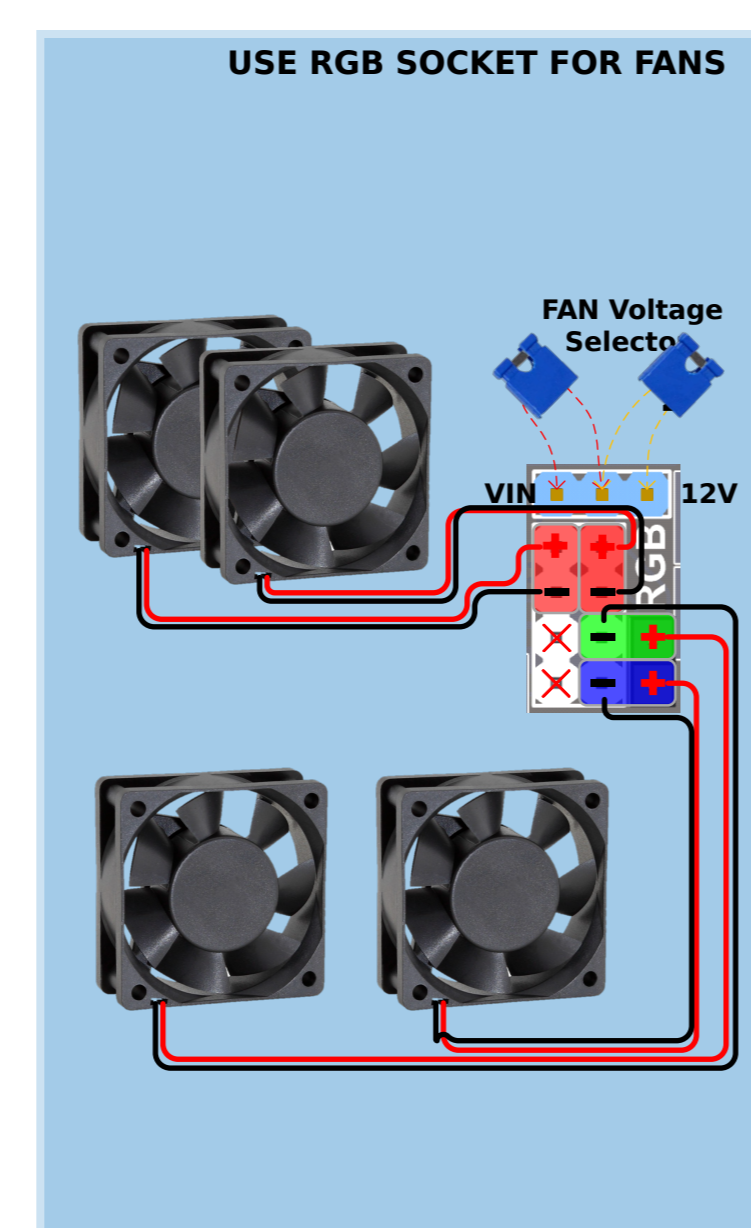
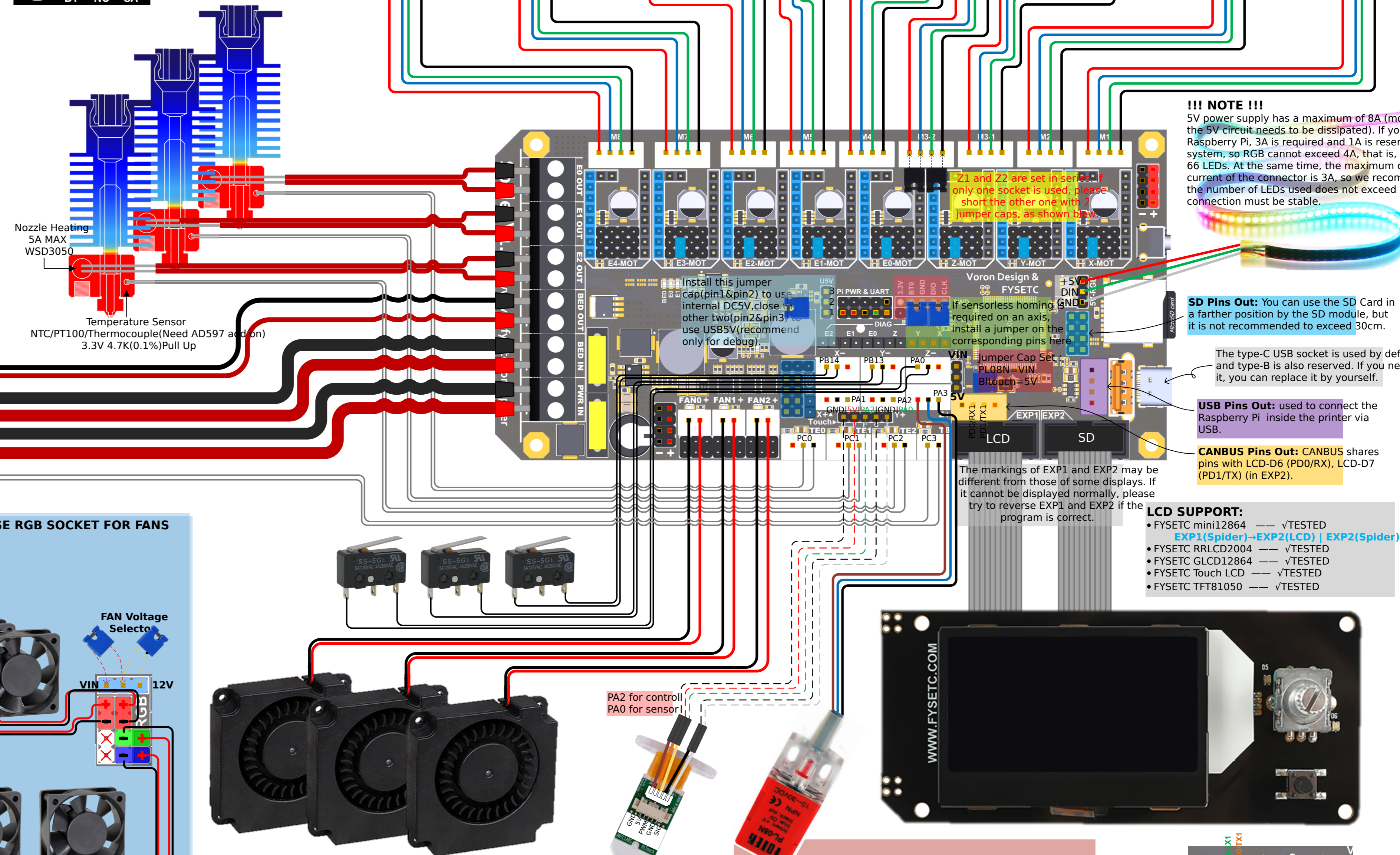
AC Heating Bed: If you use AC hot bed, you can get faster heating speed and lower PSU cost. But you need to add an SSR to control it, you can connect as shown in the dotted basket.



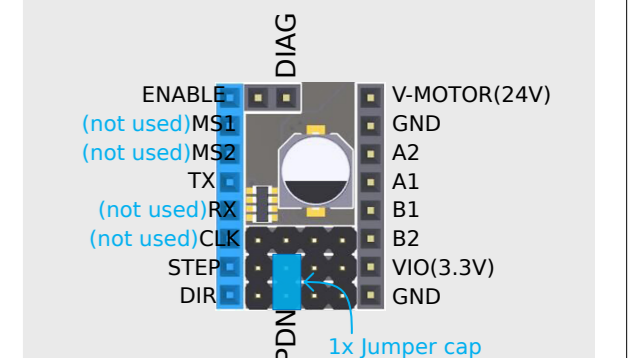
Spider V1.1 Wiring diagram

—By Eli Wong

More Information: wiki.fysetc.com/spider



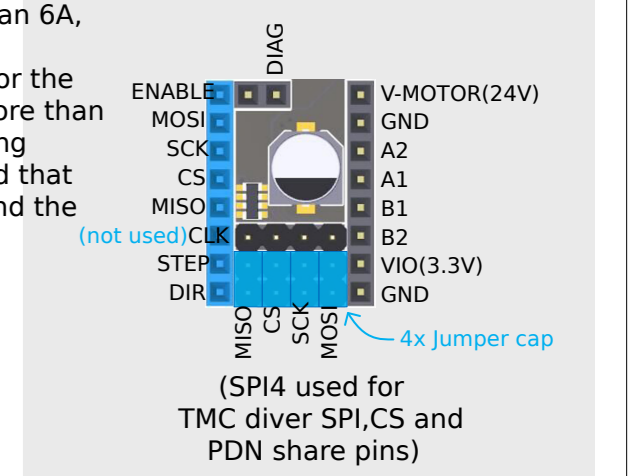
USE FYSETC TMC 2209 V3.1



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.

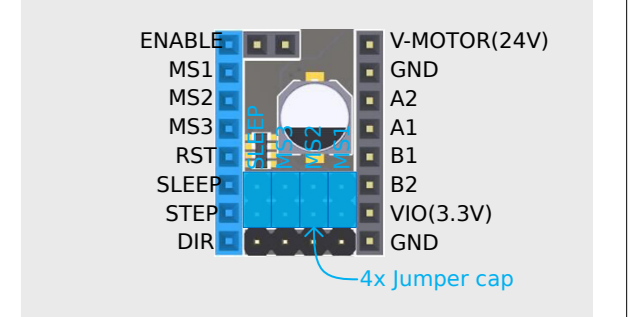
DIAG: It is used to go home without sensing, while ensuring that the jumper corresponding to the limit is in the closed state.

USE FYSETC 2130/5160/5161



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



!!! NOTE !!!
5V power supply has a maximum of 8A (more than 6A, the 5V circuit needs to be dissipated). If you use Raspberry Pi, 3A is required and 1A is reserved for the system, so RGB cannot exceed 4A, that is, no more than 66 LEDs. At the same time, the maximum carrying current of the connector is 3A, so we recommend that the number of LEDs used does not exceed 50, and the connection must be stable.

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-B is also reserved. If you need it, you can replace it by yourself.

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

CANBUS Pins Out: CANBUS shares pins with LCD-D6 (PD0/RX), LCD-D7 (PD1/TX) (in EXP2).

- LCD SUPPORT:**
- FYSETC mini12864 — vTESTED
 - EXP1 (Spider) — EXP2 (LCD) | EXP2 (Spider) — EXP1 (LCD)
 - FYSETC RRLCD2004 — vTESTED
 - FYSETC GLCD12864 — vTESTED
 - FYSETC Touch LCD — vTESTED
 - FYSETC TFT81050 — vTESTED

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
    
```

AWG Wire Gauges Current Rating

| AWG | Normal | MAX |
|-----|--------|-------|
| 26 | 0.506 | 0.577 |
| 25 | 0.641 | 0.731 |
| 24 | 0.808 | 0.921 |
| 23 | 1.022 | 1.165 |
| 22 | 1.28 | 1.460 |
| 21 | 1.6 | 1.9 |
| 20 | 2.0 | 2.3 |
| 19 | 2.6 | 2.9 |
| 18 | 3.2 | 3.7 |
| 17 | 4.1 | 4.7 |
| 16 | 5.2 | 5.9 |
| 15 | 6.5 | 7.4 |
| 14 | 8.2 | 9.4 |
| 13 | 10.4 | 11.8 |
| 12 | 13.1 | 14.9 |
| 11 | 16.5 | 18.8 |
| 10 | 20.8 | 23.7 |