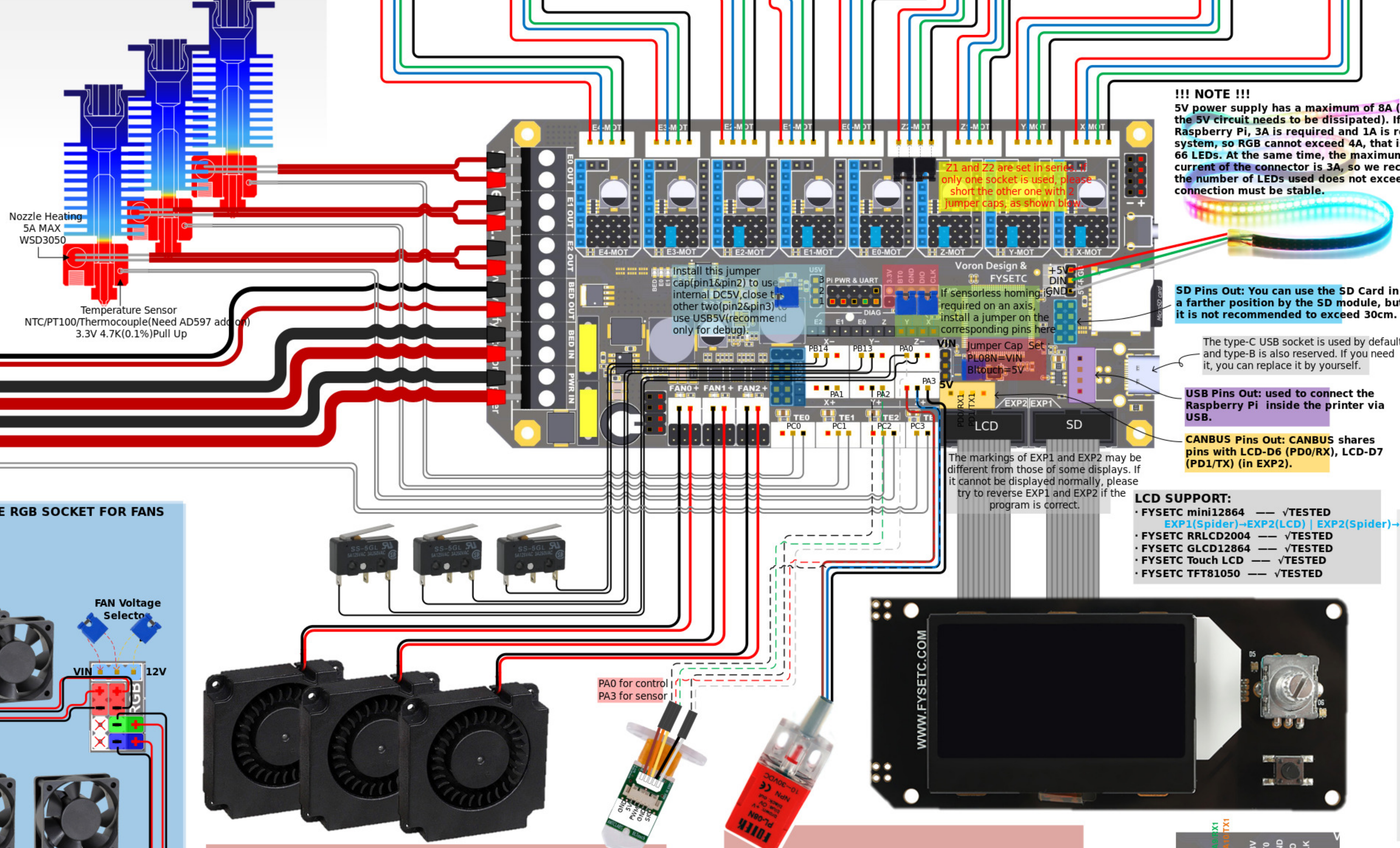


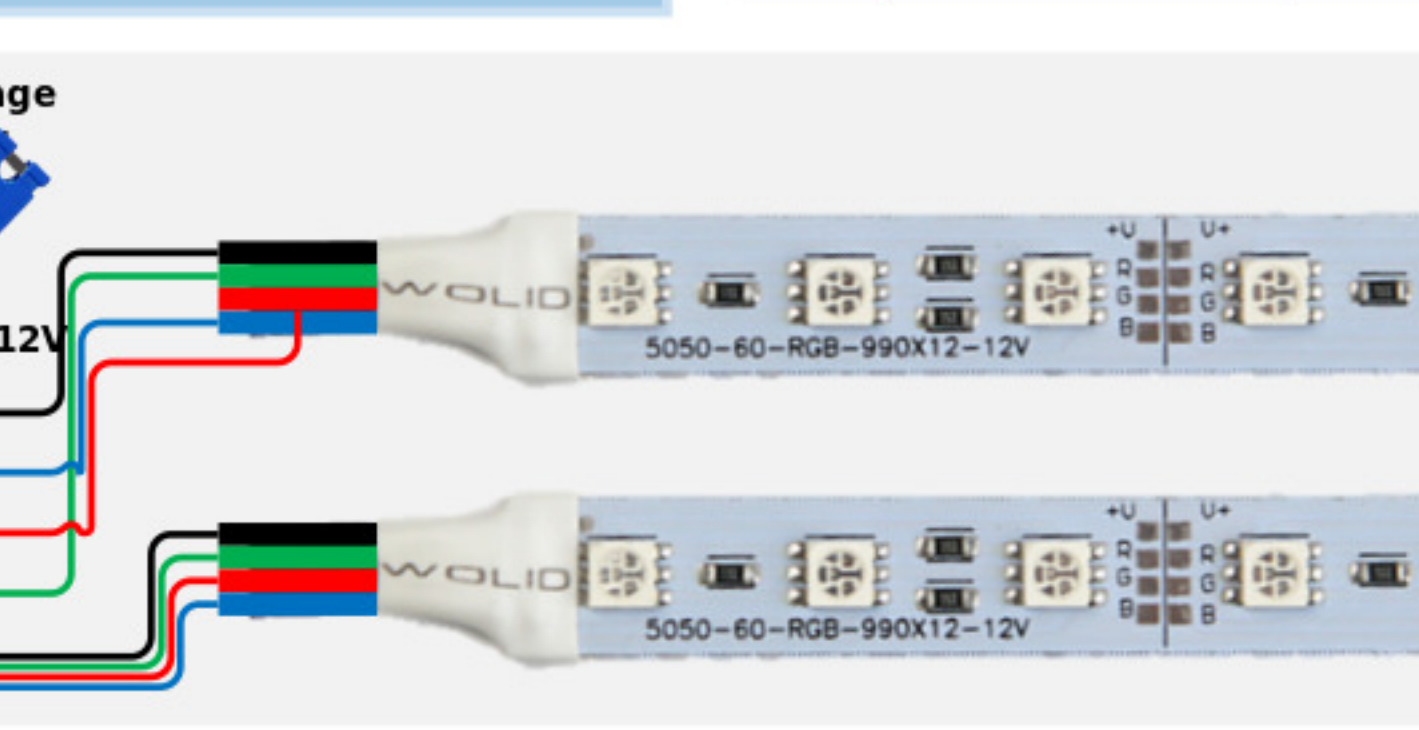
# Spider V1.0 Wiring diagram

—By Eli Wong

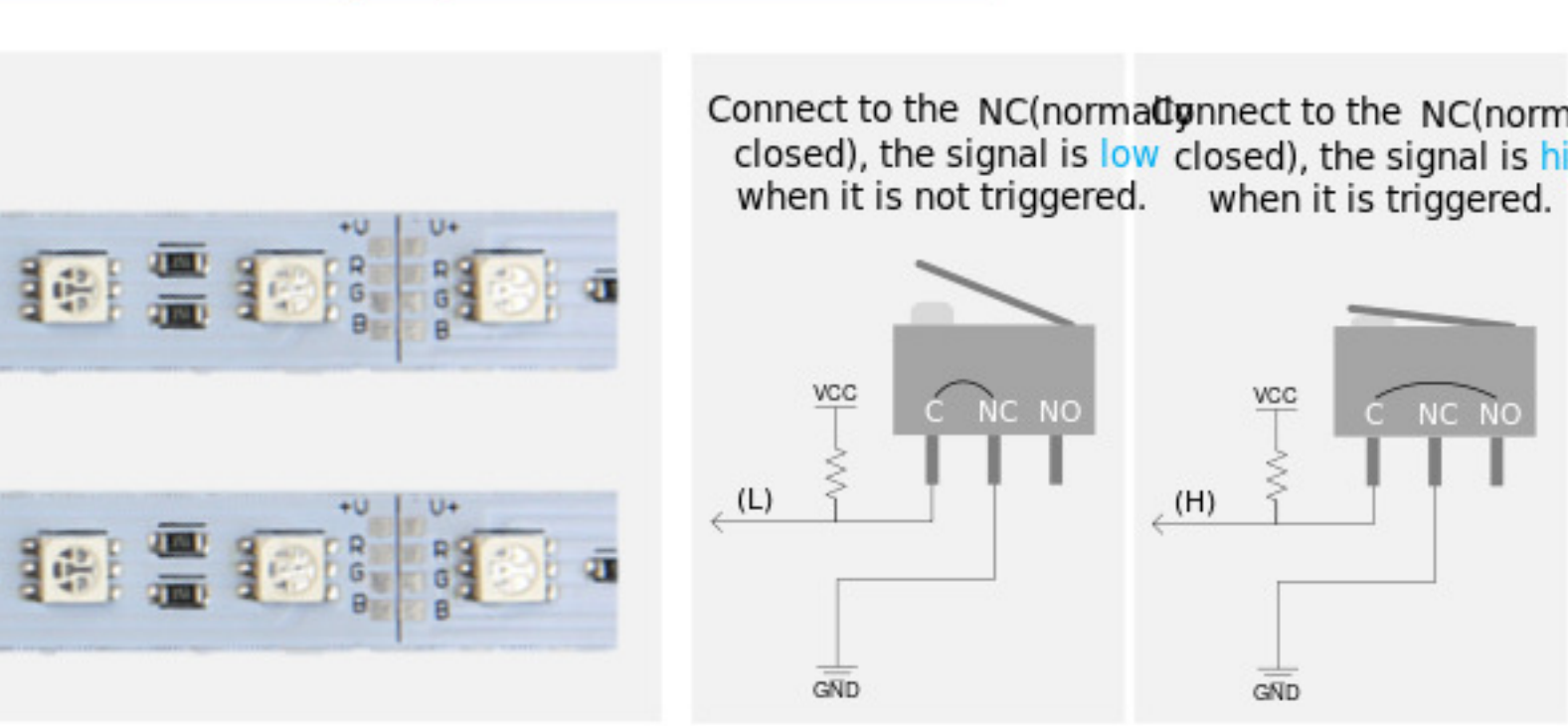
More Information: [wiki.fysetc.com/spider](http://wiki.fysetc.com/spider)



With "PWM pin" (PA2 in the Y+ socket) the Bltouch is controlled to move up and down. With the "SIG pin" the Bltouch will tell the controller trigger or not, generally use the "Z-min" pin (PA0). The power supply of Bltouch is easily connected from the Z+ socket, and the jumper cap needs to be connected to the 5V side. You can also choose to supply power from X+ or Y+, but you need to change the SMD jumper at the bottom (cut off 3.3V, and solder the middle pad with 5V with a soldering iron).

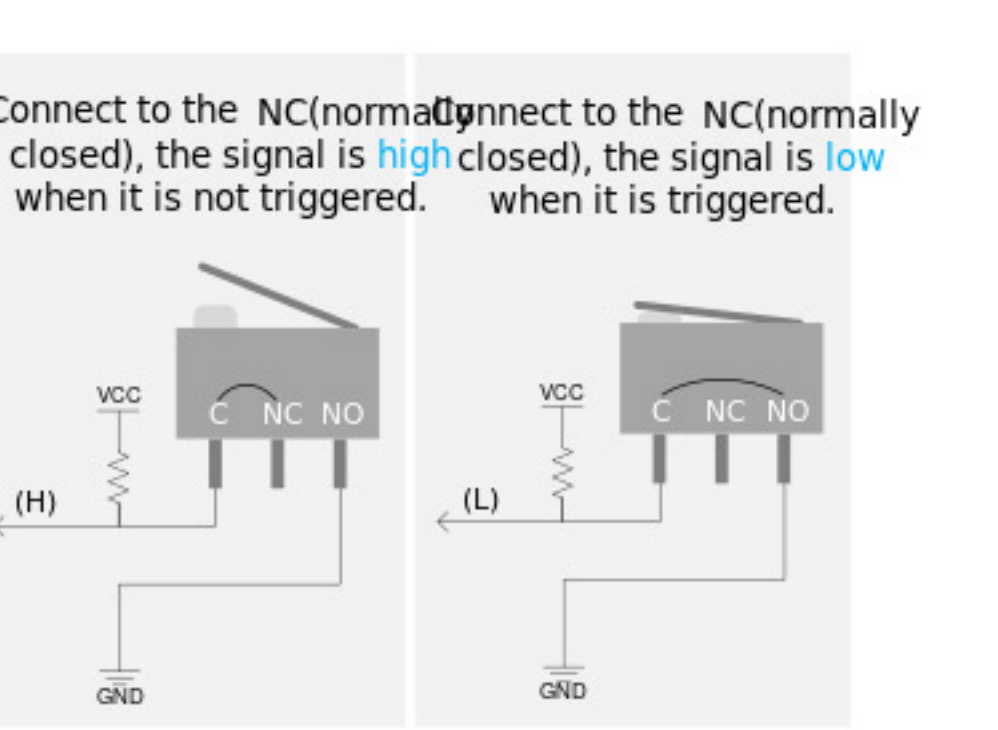


"Z+" can only be used as an input, because there is a conversion circuit that converts a high voltage signal (24V /5V) into a low voltage signal (3.3V), so it is recommended to connect a proximity sensor here, such as PL-08N.



!!! 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.



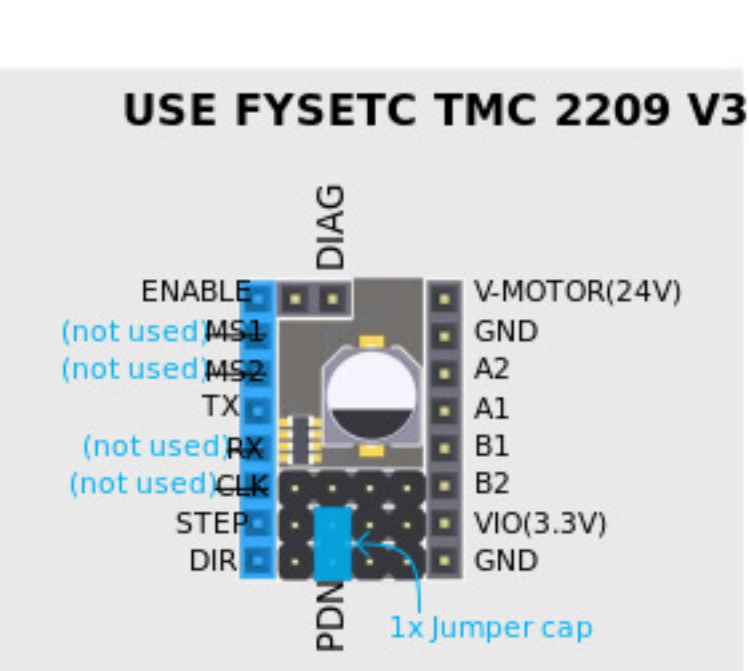
EXP1 (Spider) - EXP2 (LCD) - EXP2 (Spider) - EXP2 (LCD)

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.

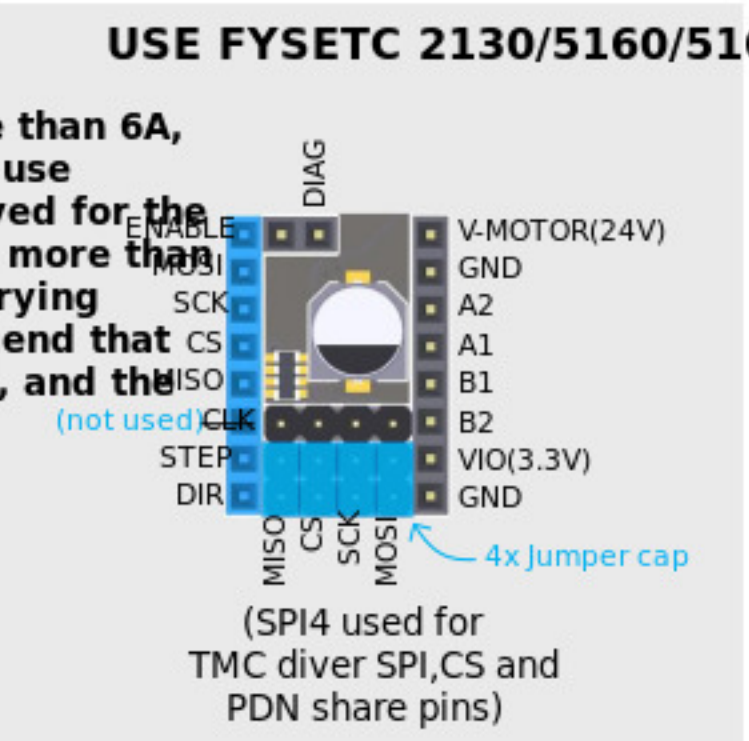
You can refer here:

```
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
```

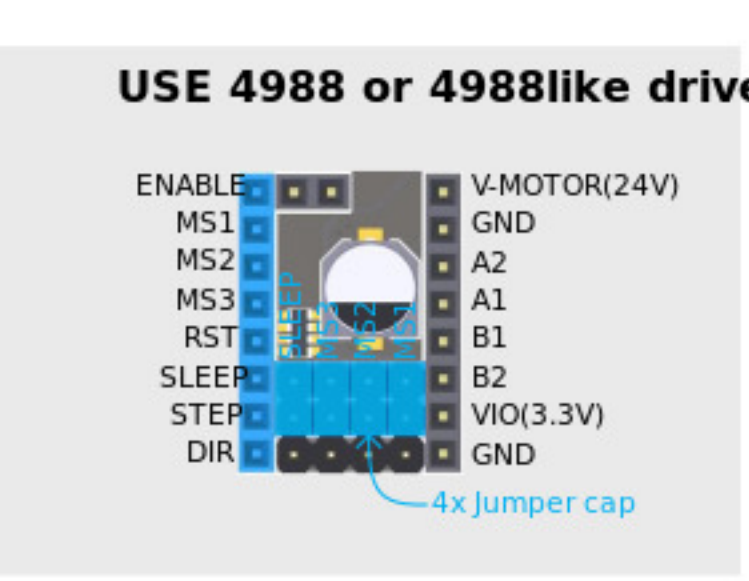


PDN: It is connected to TX for communication between TMC and MCU, using single wire jumper cap shown in the figure must be setted before the drive module install.

DIAG: It is used to go home without sensor while ensuring that the jumper correspond to the limit is in the closed state.



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