

Ensure that you wire each PSU's earth grounds ogether (one earth ground from each PSU must go he earth ground of the AC input power connector).

2. Wire each PSU's negative terminals together (one negative terminal from each PSU must go back to a common point that then gets attehed to the negative ide of the AC input power connector).

(D/D0/D1) V .- Voltage Reference

*3 Note if using PSU of 24V for "MB POWER IN":

. Calculate the maximum current draw from your 4 heaters; (13 Amps maximum for: 7 Fans, 12V rail, 5V rail and 3.3V rail); you may need to change out the "MB POWER IN FUSE" (F3) from 15 Amps to 20 Amps (Bigtreetech supplies one with each Octopus Pro V1.0 board).

3 - M3; M2 2 - M3; M2 2 - M2; M1 1 - M1; M0 0 - M1; M0

UART

Only one (1) Jumper is needed for this mode Jumper located in column MS3/2 and row 1& 2

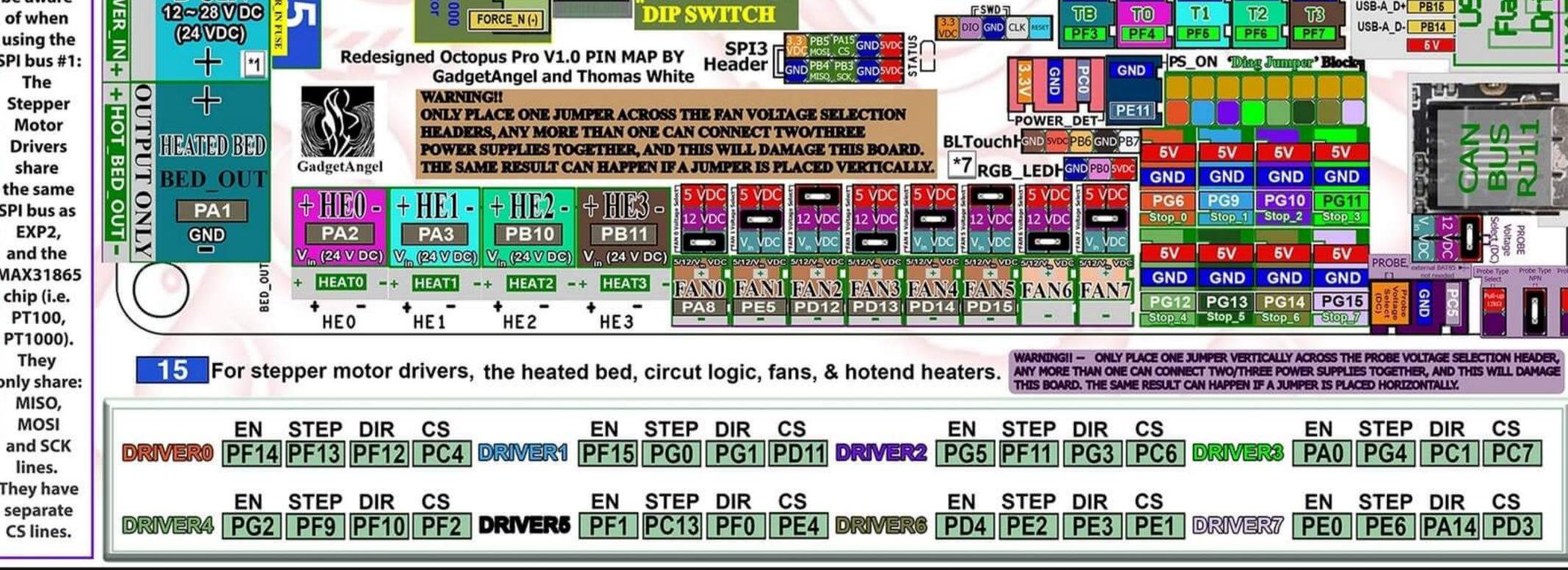
SPI MOSI PA7 \mathbf{O} MISO PA6 SCK PA5F3 DRIVERO-CS PC4 DRIVER1-CS PD111 DRIVER2-CS PC6 DRIVER3-CS PC7 DRIVER4-CS PF2 DRIVER5-CS PE4 DRIVER6-CS PEI DRIVER7-CS PD3

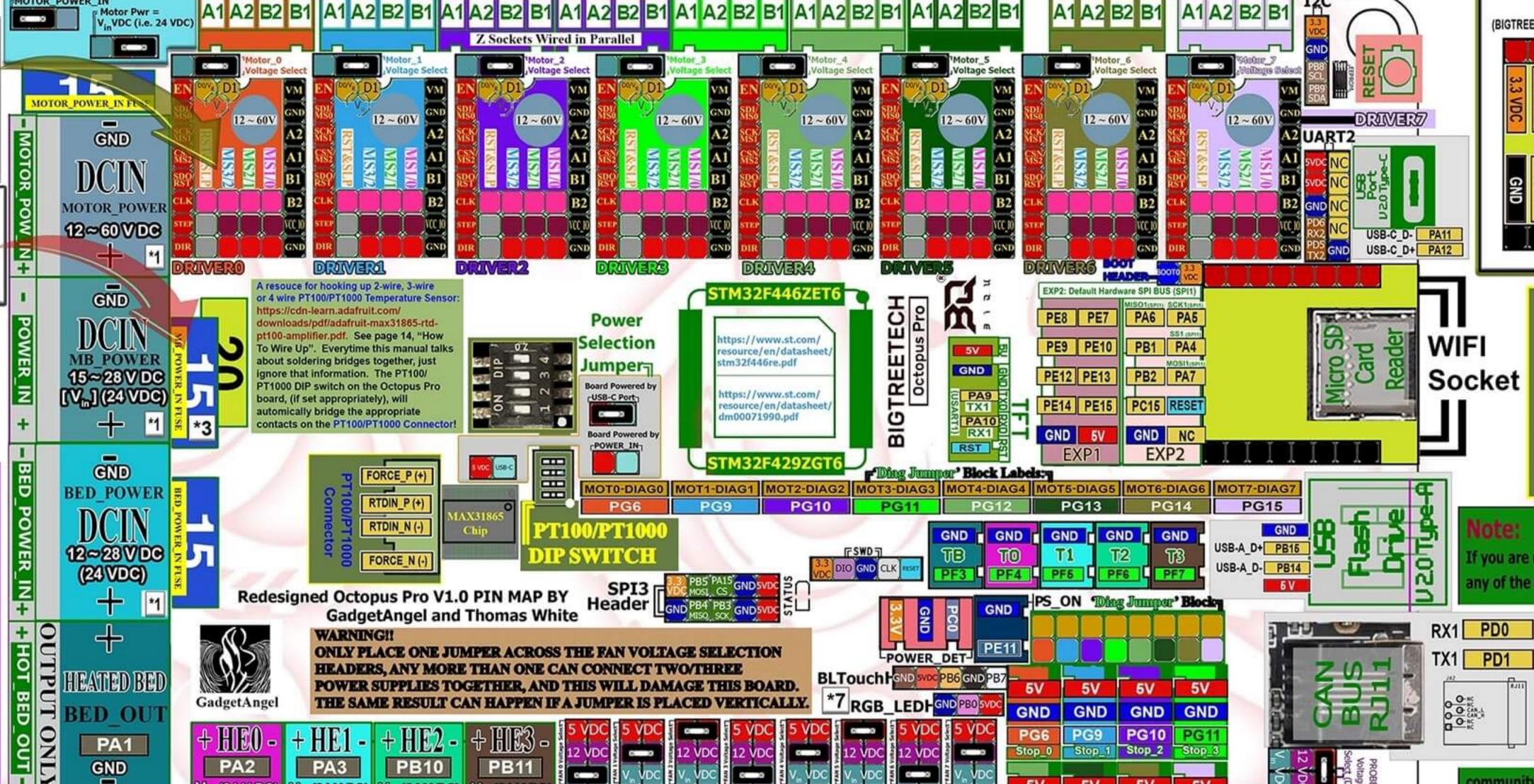
Jumpers located in: columns MISO, CS, SCK, MOSI and rows 1 & 2.





SPI bus #1 chip (i.e. They only share: MOSI and SCK lines. They have separate





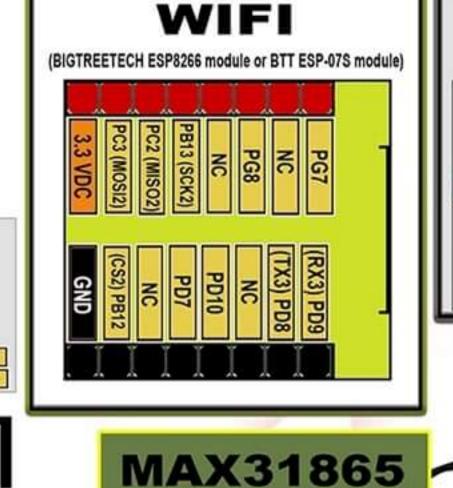
FANO FANI FAN2 FAN3 FAN4 FAN5 FAN6 FAN7
PA8 PE5 PD12 PD13 PD14 PD15

EN STEP DIR CS

PG12 PG13 PG14 PG15

EN STEP DIR CS

Stop_5 Stop_6



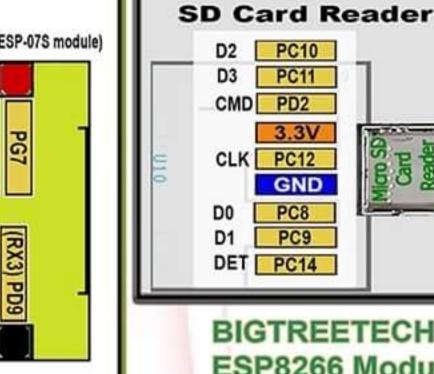
MOSI PA7

PA6

MISO

n this PIN

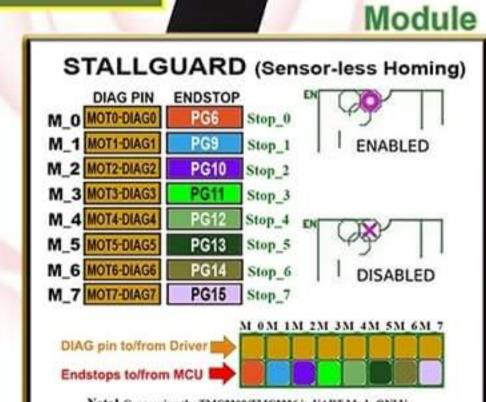
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BIGTREETECH ESP8266 Module

Micro





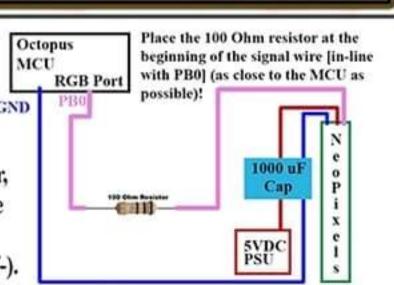
If using limit switches ensteps, ensure the DIAG pin is NOT connected to the MCU Endstep (i.e., ensure the 'Bong Rumpor' is removed).

Note2 For TMC2209/TMC2226 in UART Mode ONLY: if you are using it for your extruder motor and you want to use a filament runout sensor, ensure the DIAG DIAG1 DIAG0 PIN is NOT connected to the MCU indstop to allow the filament runout sensor to work properly (i.e., ensure the

*7 Note on using RGB Header:

chematic diagram.

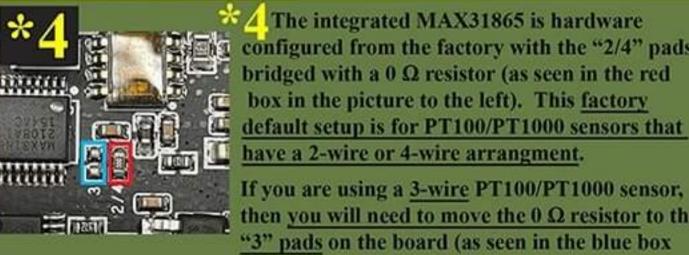
If you are using "NeoPixels" and they are NOT orperating as expected, please try the following: Additional Equipment needed: 100 Ohm resistor, 1000 uF Capacitor, and use a sepereate 5V PSU. DO NOT use the Octopus to drive the LEDS. The 5V PSU and Octopus board should have a shared GND (V-).



PT100/PT1000 DIP Switch Settings Sensor

				model
ON	ON	ON	OFF	Two-wire PT100 Sense Ω = 430
ON	ON	OFF	ON	Two-wire PT1000 Sense $\Omega = 4300$
OFF	ON	ON	OFF	Three-wire PT100 Sense Ω = 430
OFF	ON	OFF	ON	Three-wire PT1000 Sense Ω = 4300
OFF	OFF	ON	OFF	Four-wire PT100 Sense Ω = 430
OFF	OFF	OFF	ON	Four-wire PT1000 Sense Ω = 4300

2 Note the default setting is all DIP switches set to OFF (i.e. Please set DIP Swithches before you install the board!!!).





in the picture to the left).

For F429: all options the same as F446 except for Clock Frequency & Processor model!. The Example below is for the F446.

*] Enable extra low-level configuration options Micro-controller Architecture (STMicroelectronics STM32) ---> Processor model (STM32F446) ---> Bootloader offset (32KiB bootloader) ---> Communication interface (USB (on PA11/PA12)) ---> USB ids --->] Specify a custom step pulse duration (NEW) GPIO pins to set at micro-controller startup (NEW) For F429 choose STNB2F429 \$6 For F429 choose 8 MHz