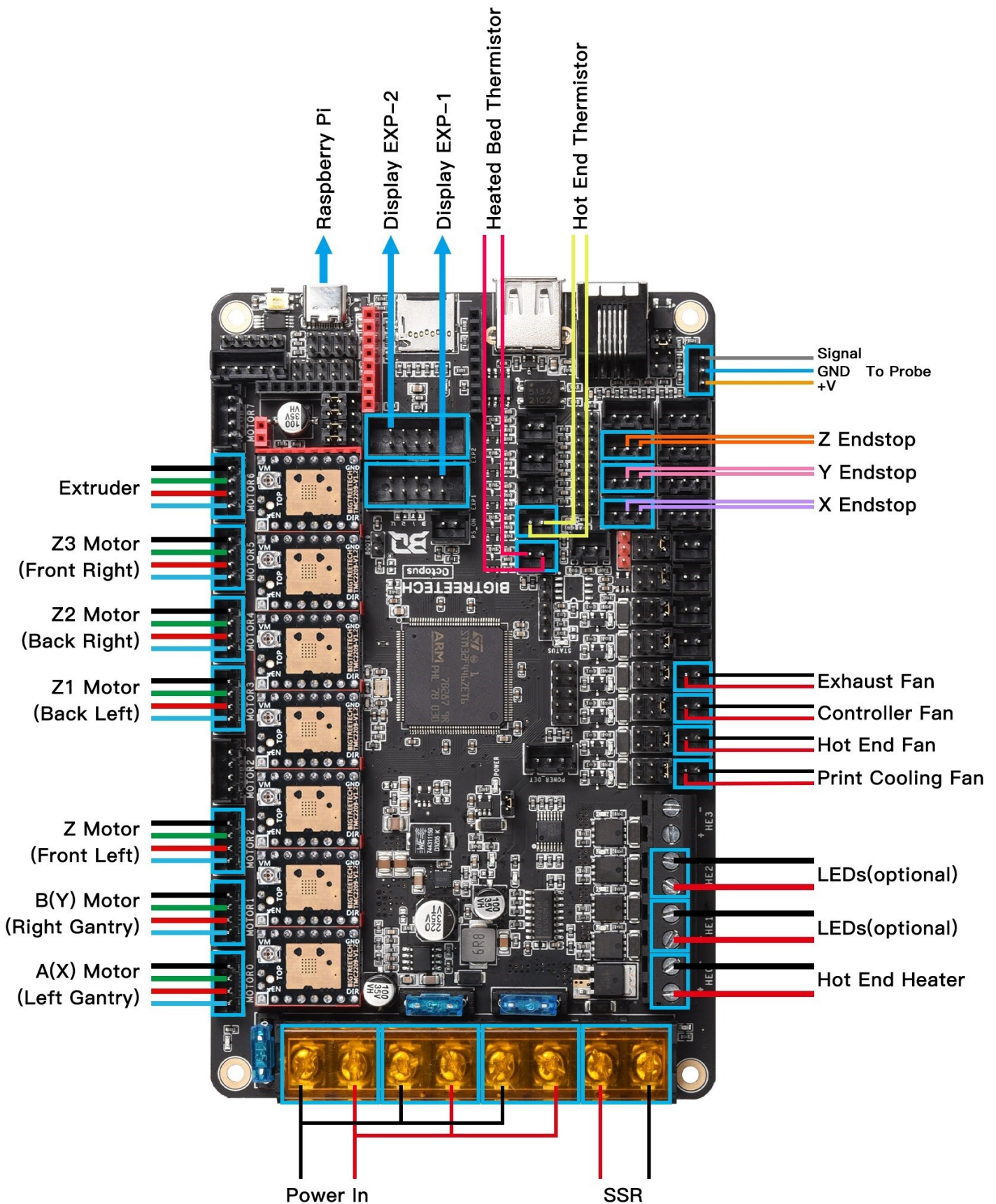# BigTreeTech Octopus Controller Board

The printer is controlled using the BTT Octopus 1.1 board. This board was chosen as it has many stepper motor outputs, allowing us to control up to 8 axis motors. The design files for the board are open source and can be found here, while the Klipper configuration details for the board are found on the Klipper page.

BLTouch

By default, the printer's Voron configuration doesn't use a BL-Touch probe and so isn't present on the diagram below (the "probe" mentioned is an inductive probe). See its respective page for details.

Wiring

Info on wiring the board for a Voron 2.4 printer design can be found on this page. Its not clear whether the "Initial Preparation" steps are necessary if not using the provided firmware.bin file (which the board is currently **NOT** using). Farther down the page is the following wiring diagram, which may not match our configuration exactly, but is a great starting point:

Raspberry Pi

Display EXP-2

Display EXP-1

Heated Bed Thermistor

Hot End Thermistor

Signal
GND   To Probe
+V

Z Endstop

Y Endstop

X Endstop

Extruder

Z3 Motor
(Front Right)

Z2 Motor
(Back Right)

Z1 Motor
(Back Left)

Exhaust Fan

Controller Fan

Hot End Fan

Print Cooling Fan

Z Motor
(Front Left)

B(Y) Motor
(Right Gantry)

A(X) Motor
(Left Gantry)

LEDs(optional)

LEDs(optional)

Hot End Heater

Power In

SSR