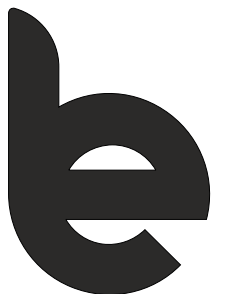# Orbiter SO3 tool-board block diagram
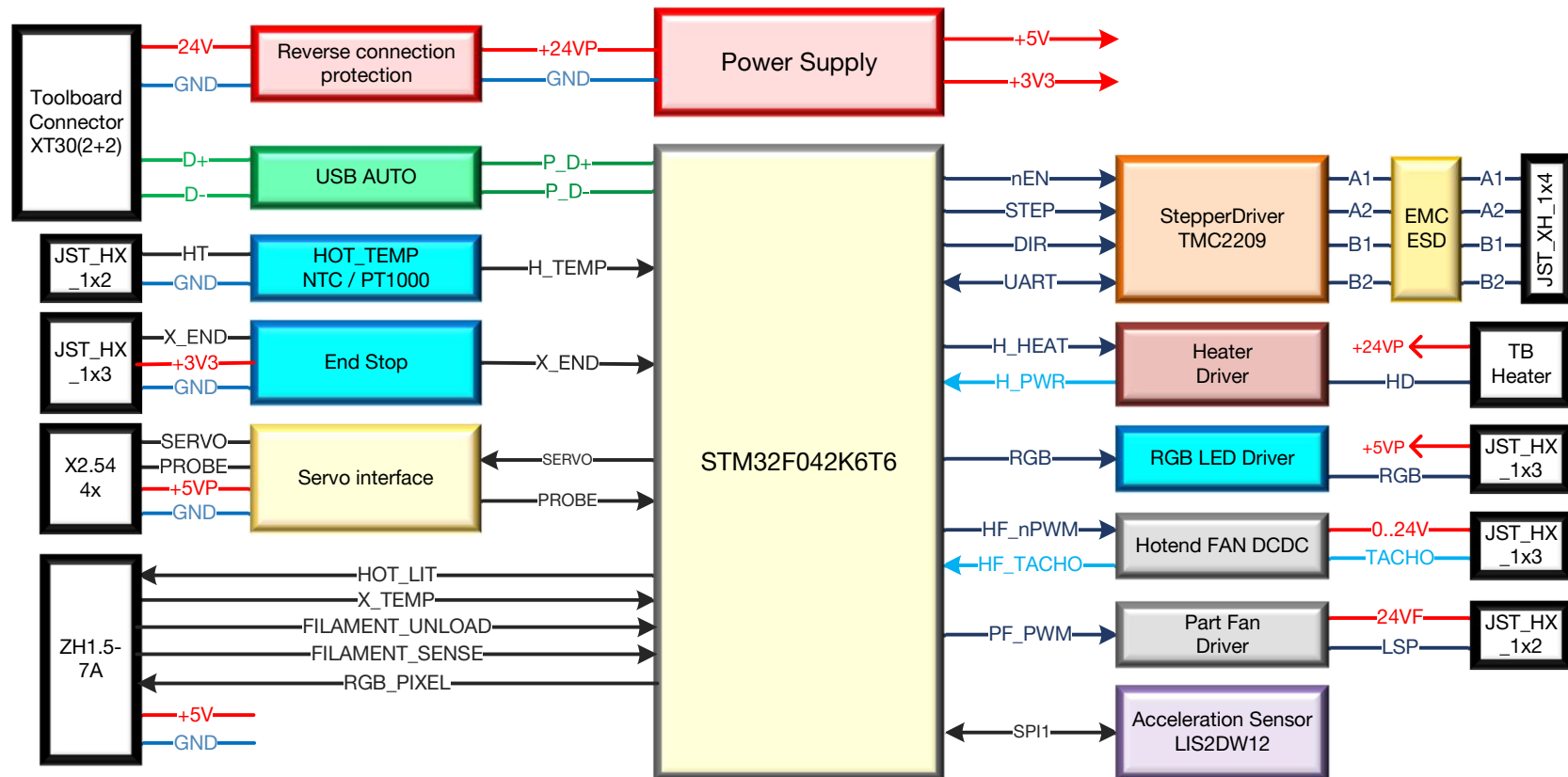
Orbiter SO3 tool-board pinout

PWR & USB
1 D-
2 D+ **3** GND **4** +24V

BOOT

SO3
1 GND
2 +5V
3 RGB_PIXEL   **PB8**
4 Filament_Sense **PA13**
5 Filament Unload **PA10**
6 Extruder Temp   **PB1**
7 Hotend Lit   **PA9**

Hotend Fan
1 TACHO – **PA3**
2 GND
3 SPEED – **PA8**

BLTOUCH
2 +5V **4** SERVO **PB3**
1 GND **3** PROBE **PA15**

Part Fan
1 +24V
2 SPEED – **PA14**

LIS2DW12 – SPI1
nCS **!PA4**
CLK **PA5**
SDO **PA6**
SDI **PA7**

RUN LED
PB8

TMC2209
STEP - **PB7**
DIR - **PB6**
nEN - **!PB4**
UART- **PB5**

EXTRUDER
4 B2
3 B1
2 A1
1 A2

END STOP

X STOP
1 3V3
2 GND
3 **PB0**

RESET

HOTEND
1 +24V **2** Heater **PA0**
3 TH-   **4** TH+
Hotend power: **PA1**
Hotend Thermistor: **PA2**

PT1000 – Jumper
OPEN – NTC – pull up Resistor 4700
CLOSE – PT1000 pull up Resistor = 2350

Orbiter SO3 tool-board wiring
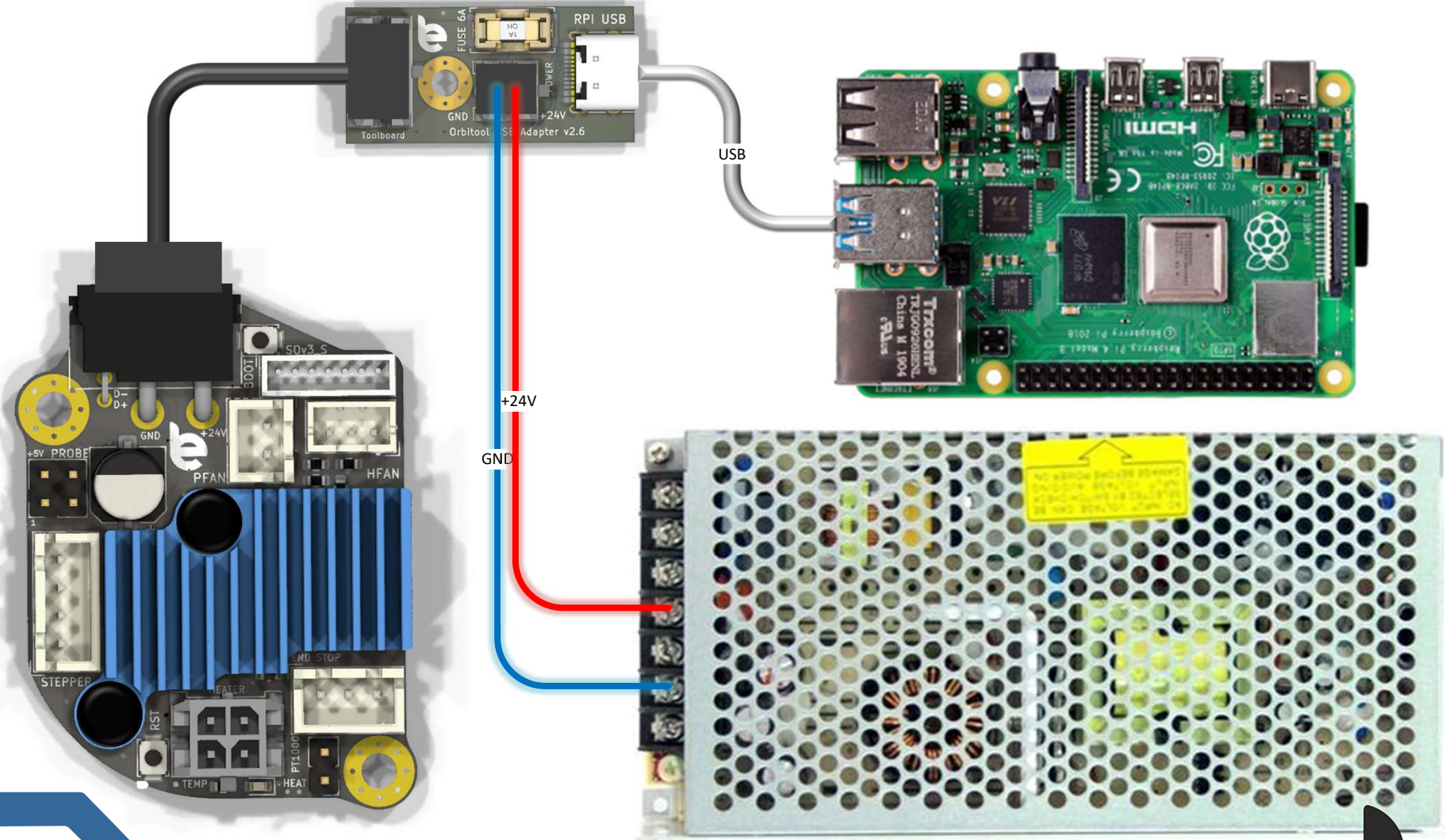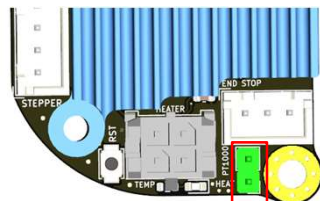
PT1000 selection jumper