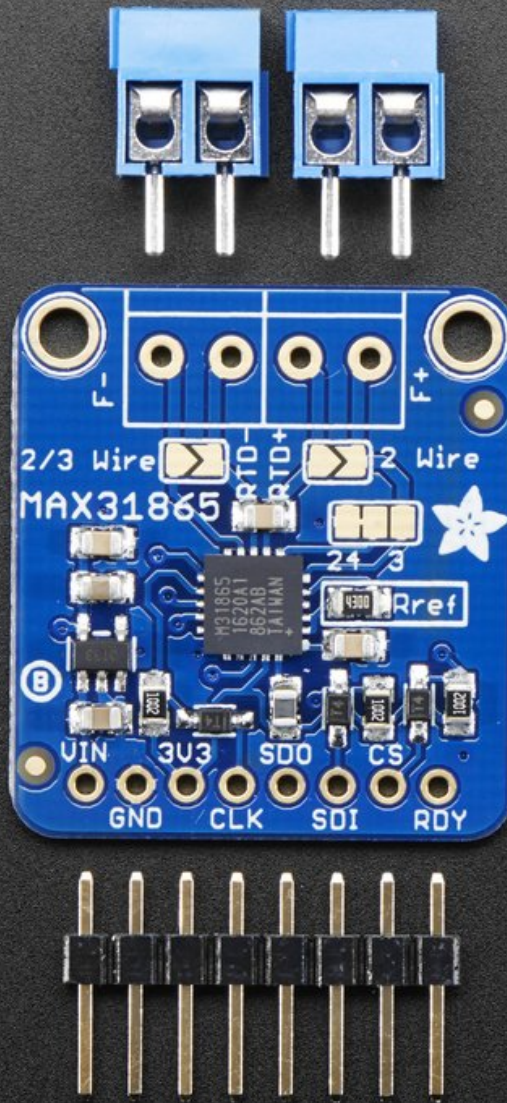


Voron Design

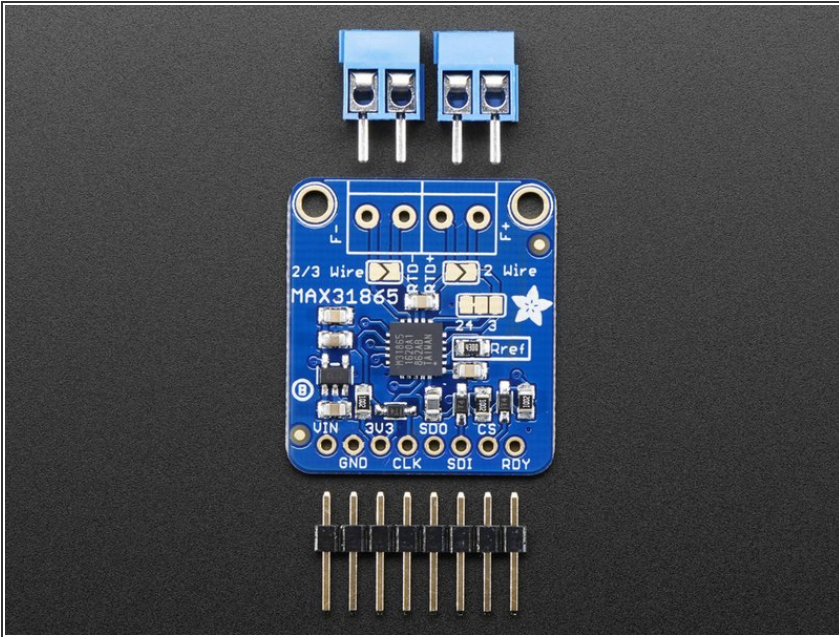
Setup PT100 w/ SKR Mini e3 v1.2 (V0)

Setup a P100 on SKR mini e3 v1.2 (Spec Board for V0)

Written By: nomsplease

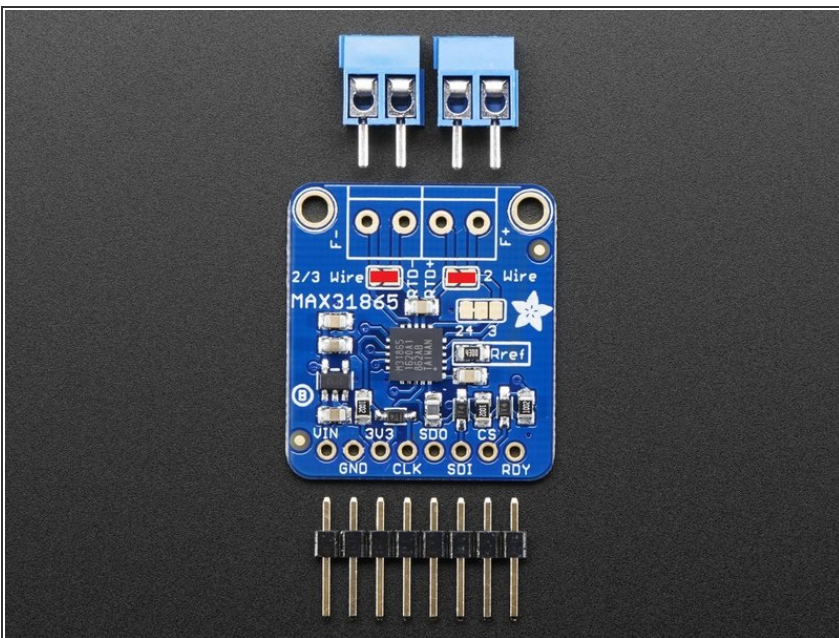


Step 1 — Sourcing



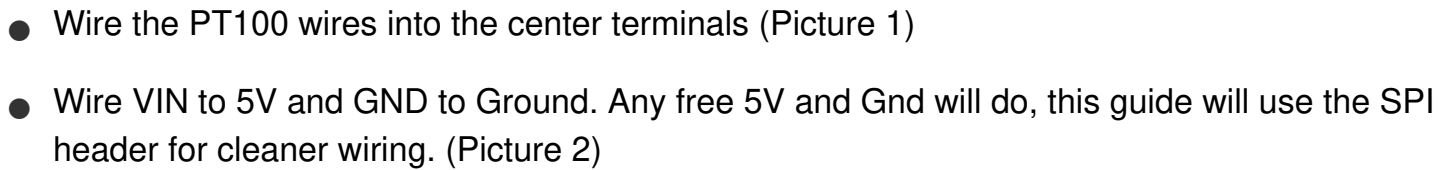
- Pt100: Any two wire pt100 thermistor will do, including ones from e3d and Trianglelab
- MAX31865 Board: You will need a Adafruit (or clone) MAX31865 amp board. You can buy the original [here](#), or just search for a cheaper clone.
- Dupont Jumper Cables: We will need 6 of them

Step 2 — Prepare the MAX31865 Board

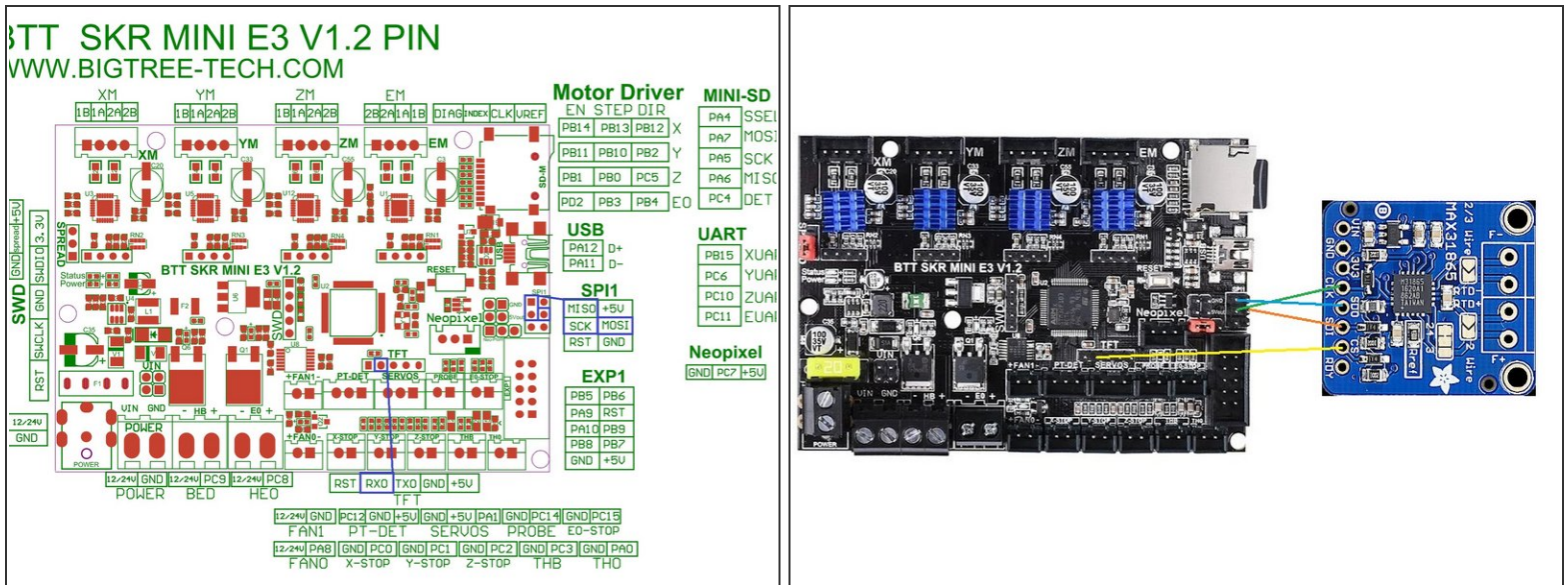


- Solder the pin header & the terminal blocks (obvious enough)
- Bridge the pads marked with 2 wire (shown in picture) with solder.

A photograph of a MAX31865 module. The module is a blue PCB with various components. At the top, there is a 4-pin header with two blue plastic covers. A red rectangle is drawn around the two center pins of this header. The PCB has labels for pins: L, +, 2/3 Wire, MAX31865, RTD+, RTD-, 2 Wire, 24, 3, Ref, VIN, GND, CLK, SDI, SD0, CS, RDY. There is also a star logo on the right side.



Step 4 — Wiring to the SPI bus



- This is the most confusing step, triple check to make sure you have the wires in the correct places.
- We will be taking MISO, MOSI, and SCK from the SPI1 header. CS will be taken from the TFT header. (Image 1)
- **Pin Mapping**
 - SKR > MAX31865
 - MISO > SDO
 - SCK > CLK
 - MOSI > SDI
 - RX0 (TFT Header) > CS

Step 5 — Configuring Klipper

```
87 sensor_type: MAX31865
88 sensor_pin: PA3 #CS On RX0 (TFT Header)
89 spi_software_sclk_pin: PA5 #SCK on SPI1
90 spi_software_mosi_pin: PA7 #MOSI on SPI1
91 spi_software_miso_pin: PA6 #MISO on SPI1
92 rtd_nominal_r: 100
93 rtd_reference_r: 430
94 rtd_num_of_wires: 2
```

- Edit your printer.cfg file. You can SSH into your RPi and use nano to edit ([tutorial](#))
- Under [extruder] insert these lines
 - sensor_type: MAX31865
sensor_pin: PA3 #CS On RX0 (TFT Header)
spi_software_sclk_pin: PA5
#SCK on SPI1
spi_software_mosi_pin: PA7
#MOSI on SPI1
spi_software_miso_pin: PA6
#MISO on SPI1 rtd_nominal_r: 100 rtd_reference_r: 430
rtd_num_of_wires: 2
- Save your changes by typing CTRL+X, Y, [ENTER]. Send FIRMWARE_RESTART from the console in Octoprint and test! It should work.