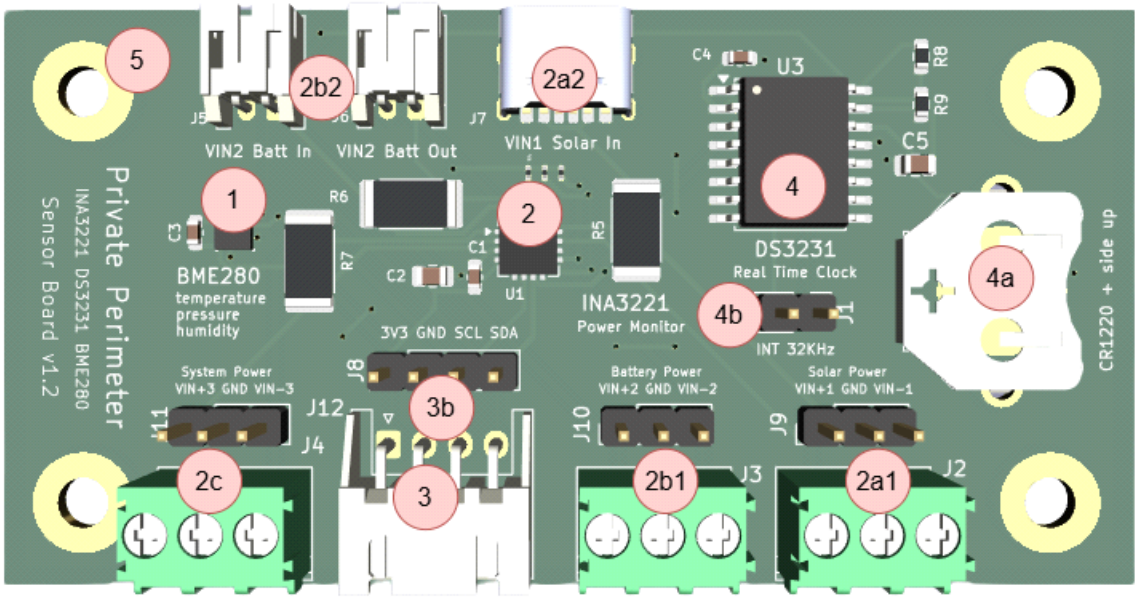
Private Perimeter Sensor Board TB (terminal block) v1.2



1. BME280 environment sensor (temperature, pressure, humidity)
2. INA3221 Power Sensor - three channels with 1W 1% 0.1 ohm shunt resistors
    - 2a1: Solar Panel Terminal Block and Dupont pins for VIN1+, GND, VIN1-
    - 2a2: Solar Panel USB-C input power only input (use the processor USB-C for firmware update)
    - 2b1: Battery Terminal Block and Dupont pins for VIN2+, GND, VIN2-
    - 2b2: JST PH 2.0 for VIN2+ / GND input, and VIN2- / GND output
    - 2c: Spare / System Terminal Block and Dupont pins for VIN3+, GND, VIN3-
3. I2C Interface - JST XH and Dupont pins with pullups
    - 3b: Dupont pins for alternate I2C interface
4. DS3231 Real Time Clock with TCXO
    - 4a: Battery holder for a CR1220 (not included) for up to 10 years of backup
    - 4b: Auxilliary Dupont pins for RTC interrupt and 32KHz signal
    - 4c: terminal block
5. M3 mounting holes

All pins are clearly marked on the board for ease of use.
Circuit includes a solid ground plane, capacitors, pull-up resistors, and signal rounding resistors which are handy for potential FCC compliance.