

The diagrams illustrate the following connections:

- J3 Soil\_Moisture:** Pin 1 to 3.3V, Pin 2 to GND, Pin 3 to SCL, and Pin 4 to SDA.
- J7 HTU12D:** Pin 1 to GND, Pin 2 to SDA, Pin 3 to SCL, and Pin 4 to 3.3V.
- J6 BH1750:** Pin 1 to SDA, Pin 2 to SCL, Pin 3 to GND, and Pin 4 to 3.3V.
- J2 Switch\_Conn:** Pin 1 to GND, Pin 2 to one terminal of Sw\_1, Pin 3 to one terminal of Sw\_2. The other terminal of Sw\_1 is connected to 3.3V, and the other terminal of Sw\_2 is connected to GND.
- J10 DHT22:** Pin 1 to 3.3V through a 10k resistor (R15), Pin 2 to GND, and Pin 3 to SCL.
- J11 DS18B20:** Pin 1 to 3.3V through a 10k resistor (R18), Pin 2 to GND, and Pin 3 to SCL.

**Power Circuitry**

**Current Upto 500 mA**

**Current > 500 mA Mount This**

[illegible]

## ESP32 Circuitry for Operation, Programming & Interfacings

The circuit diagram shows a DS3231M real-time clock module connected to a Raspberry Pi 4B. The module's pins are labeled as follows:

- VCC**: Connected to +3.3V.
- GND**: Connected to ground.
- SCL**: Connected to SCL pin 16 of the Raspberry Pi.
- SDA**: Connected to SDA pin 15 of the Raspberry Pi.
- RST**: Connected to ground.
- TINT/SQW**: Connected to ground.

A capacitor C5 (0.1 uF) is connected between VCC and GND. A battery BAT (20MM PTH) is also shown connected to VCC and GND.

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