

This is a unpowered PMOD adapter, designed for the Raspberry Pi SBC. The hat is based on the Raspberry Pi template, which in turn used the Raspberry Pi foundation specs at <https://github.com/raspberrypi/hats/blob/master/designguide.md>

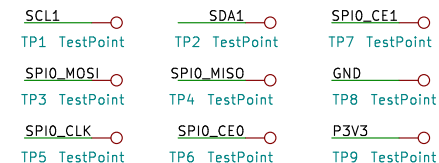
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| | | 40HAT | J1 | |
|--------------|----|-------|----|--------------|
| P3V3 | 1 | P3V3 | 2 | P5V |
| | 3 | BCM2 | 4 | P5V |
| | 5 | BCM3 | 5 | |
| | 7 | BCM4 | 8 | GND |
| GND | 9 | GND | 10 | TXD0 |
| | 11 | BCM17 | 12 | RXD0 |
| | 13 | BCM27 | 14 | GPI018 |
| | 15 | BCM22 | 16 | GPI023 |
| P3V3 | 17 | P3V3 | 18 | GPI024 |
| | 19 | BCM10 | 20 | |
| | 21 | BCM9 | 22 | GPI025 |
| | 23 | BCM11 | 24 | SPI0_CEO |
| GND | 25 | GND | 26 | SPI0_CFI |
| ID_SD_EEPROM | 27 | BCM0 | 28 | ID_SC_EEPROM |
| | 29 | BCM5 | 30 | GND |
| | 31 | BCM6 | 32 | GPI012 |
| | 33 | BCM13 | 34 | |
| | 35 | BCM19 | 36 | CTS0 |
| | 37 | BCM26 | 38 | GPI020 |
| GND | 39 | GND | 40 | GPI021 |

The diagram illustrates the pin connections for four PMOD modules (PMOD1, PMOD2, PMOD3, PMOD4) to a single 2x6 pin header. The connections are as follows:

| Module | Header Pin | Module Pin | Signal |
|--------|------------|------------|--------|
| PMOD1 | 1 | 7 | GPIO19 |
| | 2 | 8 | GPIO21 |
| | 3 | 9 | GPIO26 |
| | 4 | 10 | GPIO18 |
| | 5 | 11 | GND |
| | 6 | 12 | P3V3 |
| PMOD2 | 1 | 7 | GPIO20 |
| | 2 | 8 | GPIO13 |
| | 3 | 9 | GPIO23 |
| | 4 | 10 | GPIO24 |
| | 5 | 11 | GND |
| | 6 | 12 | P3V3 |
| PMOD3 | 1 | 7 | GPIO04 |
| | 2 | 8 | GPIO12 |
| | 3 | 9 | GPIO05 |
| | 4 | 10 | GPIO06 |
| | 5 | 11 | GND |
| | 6 | 12 | P3V3 |
| PMOD4 | 1 | 7 | GPIO22 |
| | 2 | 8 | GPIO27 |
| | 3 | 9 | SLC1 |
| | 4 | 10 | SDA1 |
| | 5 | 11 | GND |
| | 6 | 12 | P3V3 |

Optionally populated with test pins for connecting a multimeter, logic analyzer or oscilloscope.



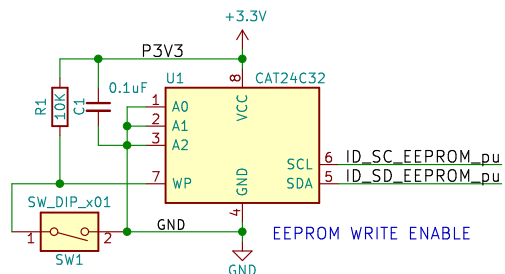
H1
3mm_Mounting_Hole

H2
3mm_Mounting_Hole

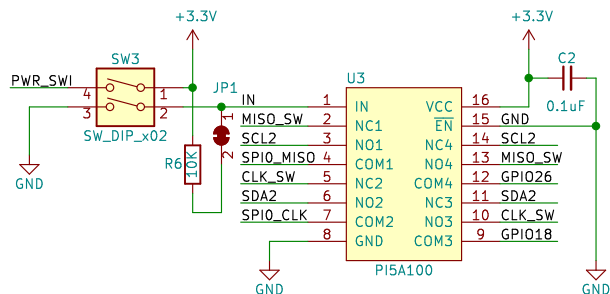
H3
3mm_Mounting_Hole

H4
3mm_Mounting_Hole

RPi hats require an EEPROM containing the hat information, and the EEPROM should be read-only (WP pin high). Switch SW1 enables writing, connecting WP pin to GND.



This switch connects the Seeeduino I2C lines on PMOD1 either to pin 3/4 (PMOD v1.3 Type 6A), or to pin 9/10.



| | U2 | SeeduoXIAO |
|------------|-------------|------------|
| | PA02_A0_D0 | 5V |
| ✗ 1 | PA4_A1_D1 | GND |
| ✗ 2 | | |
| GPIO12 3 | PA10_A2_D2 | 3V3 |
| GPIO19 4 | PA11_A3_D3 | MISO_SW1 |
| SDA2 5 | PA8_D4_SDA | SPI0_MOSI |
| SCL2 6 | PA5_D9_MISO | MISO_SW |
| | PA9_D5_SCL | CLK_SW |
| SPI0_CE1 7 | PB07_D8_SCK | CLK_SW |
| | PB08_D6_TX | SPI0_CEO |
| | PB09_D7_RX | |

FM4DD:KiCad-Logo2_5mm_SilkScreen
FM4DD:RPI_Logo
FM4DD:RasPi_GPIO_Legend
FM4DD:GND_Label
FM4DD:3V3_Label

Id: 1/1