

(This pinout also applies to Pico W)

**Legend:**

- Power
- Ground
- UART / UART (default)
- GPIO, PIO, and PWM
- ADC
- SPI / SPI (default)
- I2C / I2C (default)
- System Control
- Debugging

**Wiring Diagram Details:**

- Serial1 to SSC-32u:** UART0 TX (GPIO0), UART0 RX (GPIO1), I2C0 SDA (GPIO2), I2C0 SCL (GPIO3), SPI0 RX (GPIO4), SPI0 CSn (GPIO5).
- Serial1 GND:** GND.
- L298n\_PWM1:** I2C1 SDA (GPIO6), I2C1 SCL (GPIO7), SPI0 SCK (GPIO8), SPI0 TX (GPIO9).
- L298n\_DIRA:** I2C1 SCL (GPIO10), SPI0 TX (GPIO11).
- L298n\_DIRB:** UART1 TX (GPIO12), UART1 RX (GPIO13), I2C0 SDA (GPIO14), I2C0 SCL (GPIO15), SPI0 RX (GPIO16), SPI0 CSn (GPIO17).
- Serial2 to Ohm Meter:** UART1 TX (GPIO18), UART1 RX (GPIO19), I2C0 SDA (GPIO20), I2C0 SCL (GPIO21), SPI1 RX (GPIO22), SPI1 CSn (GPIO23).
- Serial2 GND:** GND.
- DRV8825 STEP:** I2C1 SDA (GPIO24), I2C1 SCL (GPIO25), SPI1 SCK (GPIO26), SPI1 TX (GPIO27).
- DRV8825 DIR:** UART0 TX (GPIO28), UART0 RX (GPIO29), I2C0 SDA (GPIO30), I2C0 SCL (GPIO31), SPI1 RX (GPIO32), SPI1 CSn (GPIO33).
- Other Connections:**
  - GPIO40: VBUS (5V, also for OhmMeter Board, L298n & DRV8825)
  - GPIO39: VSYS
  - GPIO38: GND (GND to Ohm Meter Board & DRV8825)
  - GPIO37: 3V3\_EN
  - GPIO36: 3V3(OUT)
  - GPIO35: ADC\_VREF
  - GPIO34: GP28 (ADC2)
  - GPIO33: GND (AGND)
  - GPIO32: GP27 (ADC1)
  - GPIO31: GP26 (ADC0)
  - GPIO30: RUN
  - GPIO29: GP22
  - GPIO28: GND
  - GPIO27: GP21 (I2C0 SCL)
  - GPIO26: GP20 (I2C0 SDA)
  - GPIO25: GP19 (SPI0 TX, I2C1 SCL)
  - GPIO24: GP18 (SPI0 SCK, I2C1 SDA)
  - GPIO23: GND
  - GPIO22: GP17 (SPI0 CSn, I2C0 SCL, UART0 RX)
  - GPIO21: GP16 (SPI0 RX, I2C0 SDA, UART0 TX)

