STARTING, USING AND SWITCHING OFF THE BOARD

Components needed

i) Motor Control Board
ii) Pi-Zero
iii) DC Motor
iv) Rotary Encoder

Powering the Device

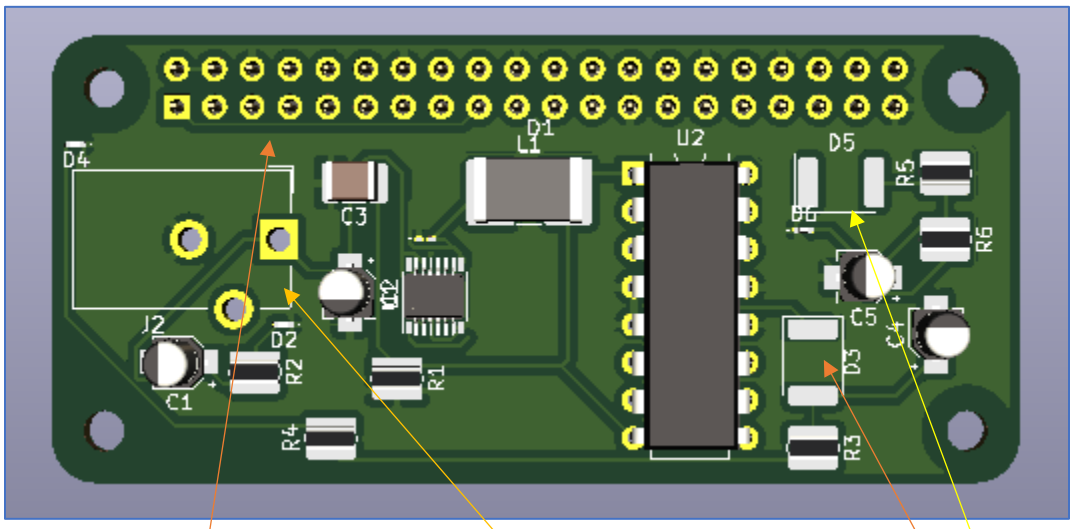

Figure 1: Motor Control Board

Solder Barrel Jack Here

Solder LEDS D5 and D3 here

Powering the Motor Control Board

Solder a female Barrel Jack to the board. The terminals of the Barrel Jack should be soldered to the exposed copper near the writings J2 on the board. Connect the board to through a male Barrel Jack. The Diode D1 should light up when the board is correctly powered.

Alternatively, you can solder positive and negative rails to the J2 terminals. The board has reverse voltage protection and therefore will not be broken if the negative terminal is connected to the positive terminal. If the diode D1 does not go on, invert your connection

Connecting the board to the Pi

The board is connected to the Pi through the 40 GPIO pins on the board. This pins will fit perfectly on the pi pins.

*Note: GPIO_17 and GPIO_22 of the board are NOT connected to the Pi

Connecting the Board to the Motor

Solder LED Diodes D5 and D3 to the board. You are free to choose the colors of your choice. These LEDs light up to indicate that the motor is running

Connect the V+ and V- pins of the motor to the motor control board through GPIO_17 and GPIO_22 respectively. These two pins are connected to the Pi and therefore the large current they carry will not damage the Pi.

Connecting the Board to the Rotary Encoder

Connect the encoder to the board through GPIO_12 and GPIO_13. This acts as the feedback channel

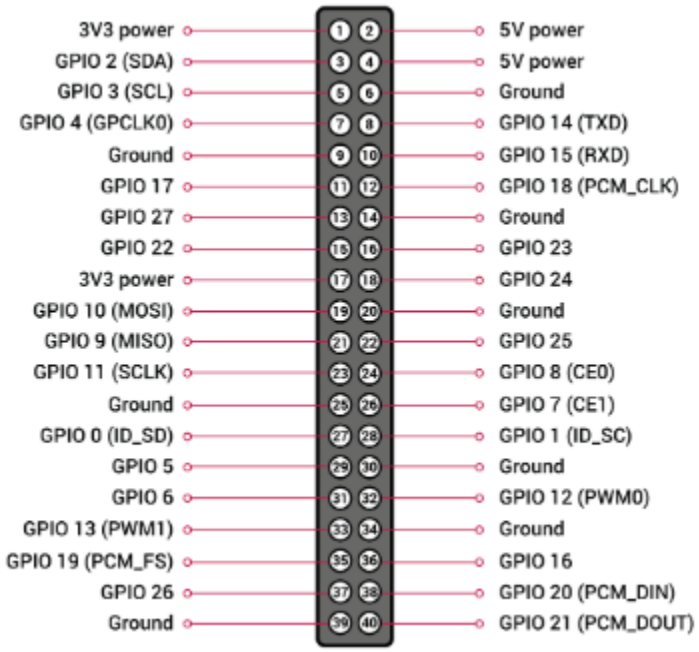

Figure 2: GPIO Pin Layout

Switching off the Board

Stop the motor then unplug the power plug from the Barrel Jack