Motor SHIM for Pico (PIM617)

Pico connector

Pi Pico

1*3	GP0	VBUS	40*3
2*3	GP1	VSYS	39*3
4*3	GP2	3V3_EN	37*3
5*3	GP3	3V3(OUT)	36*3
6*3	GP4		
7*3	GP5	ADC_VREF	35*3
9*3	GP6	GP28(ADC2)	34*3
10*3	GP7	GP27(ADC1)	32*3
		GP26(ADC0)	31*3

SWA

SDA
SCL
MOT_AP
MOT_AN

VBUS   VSYS   3V3

3V3_EN

MOT_BP
MOT_BN

3*12   GND

Qwiic / Stemma QT Connector

J1

SCL	4	SCL
SDA	3	SDA
VCC	2	
GND	1*3	

3V3
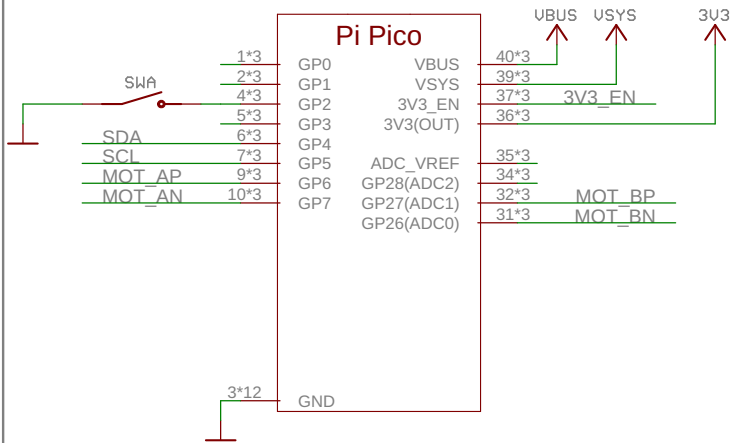
Dual motor driver and motor output connectors

VSYS

D1   BZX384-B5V6,115

C3 47uF 0805 100649
C4 47uF 0805 100649
C1 47uF 0805 100649

C24 100nF

C23 2.2uF

3V3_EN

U1

VM	AIN1
	AIN2
VCP	
	BIN1
VINT	BIN2
	AOUT1
	AOUT2
NSLEEP	BOUT1
	BOUT2
NFAULT	
GND	AISEN
	BISEN

DRV8833PWP

MOT_AP
MOT_AN

MOT_BP
MOT_BN

OUT_MOT_AP
OUT_MOT_AN

OUT_MOT_BP
OUT_MOT_BN

GND

0.82R R13
0.82R R14

GND   GND
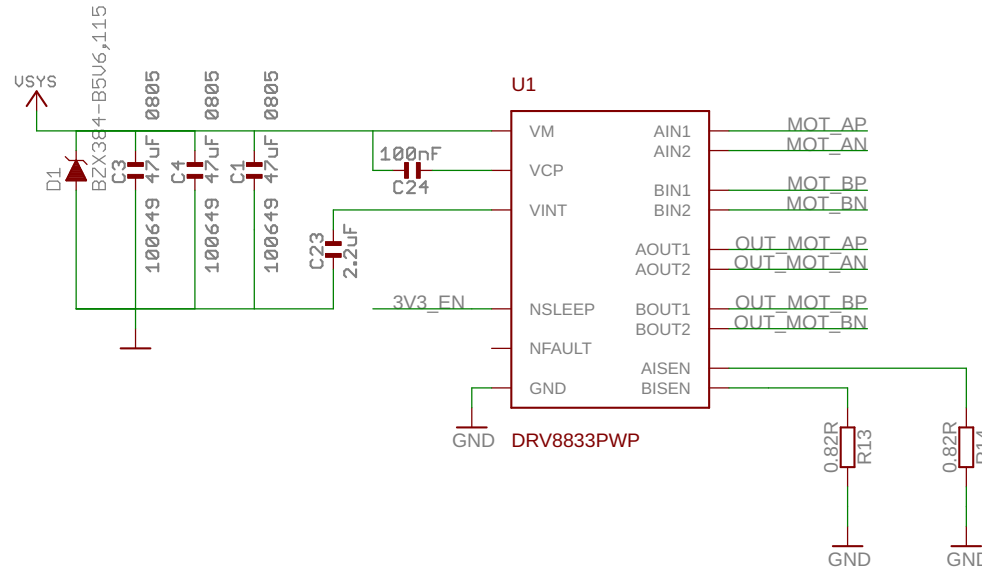
Current = 200mV/resistance
0.82ohm resistor -> 0.244A current

Resistor power: 0.244*0.2V = 0.049W

J3

1	OUT_MOT_AP
2	OUT_MOT_AN
MT1	
MT2	

J2

1	OUT_MOT_BP
2	OUT_MOT_BN
MT1	
MT2	