

PICO_USB2PED

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Version 1.0 by PM490

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Control Characters

	Char	Hex
Pulse Output	P	50
Pulse Off	p	70
Enable High	E	45
Enable Low	e	65
Direction High	D	44
Direction Low	d	64
Turn	T	54
LED High	L	4C
LED Low	I	6C

Set Pulses per Turn

Pulses/Turn	Char	Hex
200	0	0x30
400	1	0x31
800	2	0x32
1,600	3	0x33
3,200	4	0x34
6,400	5	0x35
12,800	6	0x36
25,600	7	0x37
51,200	8	0x38

Frequency Selection

Frequency (Khz)	Period (uSec)	Char	Hex
7.94	126	*	2A
7.04	142	&	26
6.02	166	^	5E
5.00	200	%	25
4.00	250	\$	24
2.99	334	#	23
2.00	500	@	40

Serial Settings for Raspberry Pi

Python

```
# Set serial for pico-transport
ser = serial.Serial()
ser.port = '/dev/ttyACM0'
ser.baudrate = 115200
ser.bytesize = 8
ser.stopbits = 1
ser.parity = 'N'
ser.timeout= 2
ser.rtscts = 0
ser.open()

# Read PICO Startup Line
received_startup = ser.readlines()

# Command Format Examples:
ser.write(b'4')    # Set Pulses per Turn to 3200
ser.write(b'L')    #Set LED pin to High
ser.write(b'l')    #Set LED pin to Low
```

PINOUT

Wiring PICO to Stepper Driver & LED

PICO		PICO			MODE	Function
GP0	1	40	VBUS			
GP1	2	39	VSYS			
GND	3	38	GND			GND
GP2	4	37	3V3_EN			
GP3	5	36	3V3 (OUT)			
GP4	6	35	ADC_VREF			
GP5	7	34	GP28			
GND	8	33	AGND			
GP6	9	32	GP27			
GP7	10	31	GP26			
GP8	11	30	RUN			
GP9	12	29	GP22			
GND	13	28	GND			GND
GP10	14	27	GP21			
GP11	15	26	GP20			
GP12	16	25	GP19	OUT		LED Control
GP13	17	24	GP18	OUT		ENABLE
GND	18	23	GND			GND
GP14	19	22	GP17	OUT		DIRECTION
GP15	20	21	GP16	OUT		PULSE