MCU_RaspberryPi_and_Boards:RPi_Pico_SMD_TH
Pico
U2

Raspberry Pi Pico

Pin	Signal		Signal	Pin
LCD_RS 1	GPIO0		VBUS	40 +5V
LCD_E 2	GPIO1		VSYS	39
3	GND		GND	38
LCD_D7 4	GPIO2		3V3_EN	37 +3.3V
LCD_D6 5	GPIO3		3V3	36
LCD_D5 6	GPIO4		ADC_VREF	35
LCD_D4 7	GPIO5		GPIO28_ADC2	34 LCD_BG_EN
8	GND		AGND	33
BTN1 9	GPIO6		GPIO27_ADC1	32 ROT_CLK
BTN2 10	GPIO7		GPIO26_ADC0	31 ROT_DT
BTN3 11	GPIO8		RUN	30
BTN4 12	GPIO9		GPIO22	29 ROT_SW
13	GND		GND	28
BTN5 14	GPIO10		GPIO21	27 BTN2_LED_EN
BTN6 15	GPIO11		GPIO20	26 BTN3_LED_EN
BTN7 16	GPIO12		GPIO19	25 BTN4_LED_EN
BTN8 17	GPIO13		GPIO18	24 BTN5_LED_EN
18	GND		GND	23
19	GPIO14		GPIO17	22 BTN6_LED_EN
BTN8_LED_EN 20	GPIO15		GPIO16	21 BTN7_LED_EN

SWCLK 41 GND 42 SWDIO 43

U1
LCD-20X4
tinkerforge:LCD-20x4

Pin	Signal	Net
16	K	LCD_BG-
15	A	
14	DB7	LCD_D7
13	DB6	LCD_D6
12	DB5	LCD_D5
11	DB4	LCD_D4
10	DB3	
9	DB2	
8	DB1	
7	DB0	
6	E	LCD_E
5	R/W	
4	RS	LCD_RS
3	V0	
2	VDD	
1	VSS	

+5V
R1
470

RV1
R_Potentiometer

GND
+5V

J3
ConnectorRotEnc
1 ROT_CLK
2 ROT_DT
3 ROT_SW
4
5
GND
+3.3V

U3
ROTARY_ENCODER_MODULE
tinkerforge:ROTARY_ENCODER
GND + SW DT CLK
ROT_SW ROT_DT ROT_CLK
+3V3
GND

U4
ULN2803A

Pin	In		Out	Pin
LCD_BG_EN 1	I1		O1	18 LCD_BG-
BTN2_LED_EN 2	I2		O2	17 BTN2_LED-
BTN3_LED_EN 3	I3		O3	16 BTN3_LED-
BTN4_LED_EN 4	I4		O4	15 BTN4_LED-
BTN5_LED_EN 5	I5		O5	14 BTN5_LED-
BTN6_LED_EN 6	I6		O6	13 BTN6_LED-
BTN7_LED_EN 7	I7		O7	12 BTN7_LED-
BTN8_LED_EN 8	I8		O8	11 BTN8_LED-

COM 10
GND 9

ButtonBoard

BTN1	BTN1_SW1	BTN5_SW1 BTN5
GND	BTN1_LED-	BTN5_LED+
+5V R2 200	BTN1_LED+	BTN5_LED- R6 200 +5V
BTN1_GND	BTN1_SW2	BTN5_SW2 BTN5_GND
BTN2	BTN2_SW1	BTN6_SW1 BTN6
R3 BTN2_LED-	BTN2_LED-	BTN6_LED+
+5V 200	BTN2_LED+	BTN6_LED- R7 200 +5V
BTN2_GND	BTN2_SW2	BTN6_SW2 BTN6_GND
BTN3	BTN3_SW1	BTN7_SW1 BTN7
R4 BTN3_LED-	BTN3_LED-	BTN7_LED+
+5V 200	BTN3_LED+	BTN7_LED- R8 200 +5V
BTN3_GND	BTN3_SW2	BTN7_SW2 BTN7_GND
BTN4	BTN4_SW1	BTN8_SW1 BTN8
R5 BTN4_LED-	BTN4_LED-	BTN8_LED+
+5V 200	BTN4_LED+	BTN8_LED- R9 200 +5V
BTN4_GND	BTN4_SW2	BTN8_SW2 BTN8_GND

Datei: ButtonBoard.kicad_sch

BTN1_GND BTN2_GND BTN3_GND BTN4_GND BTN5_GND BTN6_GND BTN7_GND BTN8_GND
9 8 7 6 5 4 3 2
RN4.7k1
R_Network08
1
GND

J1
Conn_01x19_Male

1	BTN1_SW1
2	BTN1_LED−
3	BTN1_LED+
4	BTN1_SW2
5	
6	BTN2_SW1
7	BTN2_LED−
8	BTN2_LED+
9	BTN2_SW2
10	
11	BTN3_SW1
12	BTN3_LED−
13	BTN3_LED+
14	BTN3_SW2
15	
16	BTN4_SW1
17	BTN4_LED+
18	BTN4_LED−
19	BTN4_SW2

J2
Conn_01x19_Male

1	BTN5_SW1
2	BTN5_LED+
3	BTN5_LED−
4	BTN5_SW2
5	
6	BTN6_SW1
7	BTN6_LED+
8	BTN6_LED−
9	BTN6_SW2
10	
11	BTN7_SW1
12	BTN7_LED+
13	BTN7_LED−
14	BTN7_SW2
15	
16	BTN8_SW1
17	BTN8_LED+
18	BTN8_LED−
19	BTN8_SW2