

Solder-Oven-BOM

Reference	Value	Footprint	Qty	Description	Link
C1,C6	10nF	Capacitor_SMD:C_0603_1608M	2	Unpolarized capacitor	LCSC(100)
C2,C8,C11,C15,C19	100nF	Capacitor_SMD:C_0603_1608M	5	Unpolarized capacitor	LCSC(100)
C3,C4,C5,C7	1nF	Capacitor_SMD:C_0603_1608M	4	Unpolarized capacitor	LCSC(100)
C10,C14,C18	10uF	Capacitor_SMD:C_0603_1608M	3	Unpolarized capacitor	LCSC(20)
C12,C13,C16,C17	22uF	Capacitor_SMD:C_0603_1608M	4	Unpolarized capacitor	LCSC(30)
D1	Orange LED	LED_SMD:LED_1206_3216Metric	1		LCSC(50)
D2	White LED	LED_SMD:LED_1206_3216Metric	1		LCSC(50)
D3	Yellow LED	LED_SMD:LED_1206_3216Metric	1		LCSC(50)
D4	Red LED	LED_SMD:LED_1206_3216Metric	1		LCSC(50)
D5	Green LED	LED_SMD:LED_1206_3216Metric	1		LCSC(50)
D6	Blue LED	LED_SMD:LED_1206_3216Metric	1		LCSC(50)
D7,D8	LED	LED_SMD:LED_1206_3216Metric	2		
D9,D10	C2986110	Diode_SMD:D_SMA_Handsolder	2	Schottky diode	LCSC(50)
F1	2A	Fuse:Fuse_1812_4532Metric_P	1	Fuse	LCSC(5)
J1,J2,J3,J4,J6,J8,J9,J10,J12	Screw_Terminal_01x02	Connectors_Terminals:1x2 5.0	9	1x2 5.08mm Screw Terminal	LCSC(50)
J5,J7	Screw_Terminal_01x06	Connectors_Terminals:1x6 2.5	2	1x6 2.54mm Screw Terminal	LCSC(2)
J11	Screw_Terminal_01x01	Solder a wire to it	1	1x1 2.54mm Pin Header	
L1,L2	4.7uH	Inductors:LCSCC22463808	2	Inductor	LCSC(5)
Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q11	SSF2302	Package_TO_SOT_SMD:SOT-23	10	N-MOSFET transistor, drain/source/gate	
R1,R4	1M	Resistor_SMD:R_0603_1608Metric	2	Resistor	LCSC(100)
R2,R3,R5,R6,R17,R18,R22	10k	Resistor_SMD:R_0603_1608Metric	7	Resistor	
R7	1k	Resistor_SMD:R_0603_1608Metric	1	Resistor	LCSC(100)
R8,R9,R10,R11,R12,R13,R14,R15,R16,R20,R21	200R	Resistor_SMD:R_0603_1608Metric	11	Resistor	
SW1	EC11 Generic	Rotary_Encoder:RotaryEncoder	1	Rotary encoder	
SW2,SW3	SW_Push	MX_Only:MXOnly-1U-NoLED	2	Push button switch, generic, two pins	
U1,U2	MAX31855KASA	Package_SO:SOIC-8_3.9x4.9	2	Cold Junction K-type Thermocouple Interface, SPI, SOIC-8	LCSC(2)
U3	ESP32-C3-SuperMini	ESP-32:ESP32-C3_SUPERMINI	1	2x 1x8 2.54mm pins	

Solder-Oven-BOM

U4	2.8" _SPI_ Display Touch Screen	Arduino-Accessories:2.8in TFT D	1	1x14 2.54mm pins	
U5	TCA9539PWR	Package_SO:TSSOP-24_4.4x7	1	I2C I/O Expander	LCSC(1)
U6	74HC595	Package_SO:SOP-16_3.9x9.9	1	8-bit serial in/out Shift Register 3-State Outputs	LCSC(10)
U8	AP63203WU	Package_TO_SOT_SMD:TSOT-2	1	2A, 1.1MHz Buck DC/DC Converter, fixed 3.3V output voltage, TSOT-23-6	LCSC(5)
U9	AP63205WU	Package_TO_SOT_SMD:TSOT-2	1	2A, 1.1MHz Buck DC/DC Converter, fixed 5.0V output voltage, TSOT-23-6	LCSC(1)
U10	RPi Pico	RPI-Pico:RPi_Pico_SMD_TH	1	2x 1x20 2.54mm pins	
	Solid State Relay		1		Digikey(1)
R25,R26,R27,R28,R29,R30,R31,R32,R33,R34,R40,R41,R42,R43	100R	Resistor_SMD:R_0603_1608Me	14	Resistor	
	1x8 2.54mm pin header Male	ESP-32:ESP32-C3_SUPERMINI	2	Male Pins	LCSC(10)
	1x8 2.54mm pin header Female	ESP-32:ESP32-C3_SUPERMINI	2	Female Pins	LCSC(10)
	1x14 2.54mm pin header Male	Arduino-Accessories:2.8in TFT D	1	Male Pins	LCSC(10)
	1x14 2.54mm pin header Female	Arduino-Accessories:2.8in TFT D	1	Female Pins	LCSC(5)
	1x20 2.54mm pin header Male	RPI-Pico:RPi_Pico_SMD_TH	2	Male Pins	LCSC(10)
	1x20 2.54mm pin header Female	RPI-Pico:RPi_Pico_SMD_TH	2	Female Pins	LCSC(5)
	16mm Panel Mount Switch	BOOTSEL Button	1		AliExpress(1)
			1	Panel Mount USB-C to USB-C	AliExpress(1)

Solder-Oven-BOM

			1	Panel Mount USB-C to Micro B	AliExpress(1)
			1	Mean Well 12V 3.8A PSU	Digikey(1)