

BOM_CW motherboard

Name	Designator	Quantity	Check	Description	Supplier	Supplier Part
PC817	U2,U3	2		PC817X2NSZ1B Optocoupler	Mouser	852-PC817X2NSZ1B
220Ohm	R2,R1,R9	3		220 Ohm 1/4w Resistor	Mouser	270-220-RC
EN11-VSM	U4	1		EN11-VSM1AF20 rotary encoder	Mouser	858-EN11-VSM1AF20
Display	H1			1x4 Male 2.54 header		from male breakaway
PS12	SP1	1		5v Piezo Buzzer	Mouser	810-PS1420P02CT
470Ohm	R4,R5,R3	3		470 Ohm 1/4w Resistor	Mouser	270-470-RC
Paddles	J1	1		3.5 mm stereo jack	Mouser	490-SJ1-3535NG
TX	J2	1		3.5 mm stereo jack	Mouser	490-SJ1-3535NG
LED_WP934EB/2GD	U5	1		Reg/Green stacked LED	Mouser	604-WP934MDLILGD
100p	C1,C2	2		100pF MLCC Capacitor	Mouser	81-RHS7G2A101J0DGH1A
1pF	C3,C4	2		1pF MLCC Capacitor	Mouser	81-RHS7G2A102J0DGH1A
10uH	L1,L2	2		10uH Fixed Inductors	Mouser	542-78F100-RC
1kOhm	R6,R7	2		1K Ohm 1/4w Resistor	Mouser	270-1K-RC
KLDX_0202-334781	U6	1		DC Power Connectors 2.5mm PCB JACK	Mouser	806-KLDX-0202-B
Headphones	J3	1		3.5 mm stereo jack	Mouser	490-SJ1-3535NG
10k bused network	U7	1		Bourns 4605X-101-103LF	Mouser	652-4605X-1LF-10K
10k isolated network	U8	1		Bourns 4610X-102-102LF	Mouser	652-4610X-2LF-1K
Buttons Header	H2			1x8 Male 2.54 header		from male breakaway
10uF	C5	1		Electrolytic Capacitors - Radial 10uF	Mouser	647-USA1C100MDD
ASR	JP1			1x2 Male 2.54 header		from male breakaway
2N2222	Q1	1		PN2222A-AP	Mouser	833-PN2222A-AP
2.2kOhm	R8	1		2.2K Ohm 1/4w Resistor	Mouser	270-2.2K-RC
ATMEGA2560-16AU	MEGA	1		Mini MEGA 2560 Pro Micro	eBay	401679883885
PS2 Header	H3	1		1x4 Male 2.54 header		from male breakaway
Volume Pot Header	H4	1		1x2 Male 2.54 header		from male breakaway
Extra Header	H5	1		1x2 Male 2.54 header		from male breakaway
Button Matrix		1		Matrix 8 Keypad Keyboard Board Module	eBay	401237001121
I2C LCD Screen		1		1602 BLUE LCD 16x2 HD44780 Character IIC I2C	eBay	322396495498
LCD screen cables		4		female to female jumper cable 3" long min.		
Arduino socket 21 pins		1		21 Pins 2 Rows 2.54 header	Mouser	from female breakaway
Arduino socket 16 pins		1		16 Pins 2 Rows 2.54 header (or breakaway)	Mouser	from female breakaway
male breakaway headers		1		40 pins breakaway Male 2.54 header	eBay	180974247480
female breakaway headers		2		40 pins breakaway Female 2.54 header	eBay	180974322541
Knob for encoder		1				
50mm standoffs		4		female to male with 6mm thread (if using 3D printed front plate- only two are used)	Amazon	B00AO4332O
6mm standoffs		4		female to male with 6mm thread (if using 3D printed front plate - only two are used)	Amazon	B00AO40QTW
3mm x 6mm steel pan screw		6		4 for plates - 2 for screen	McMaster	92005A116
Berg jumper 2.54		2		for H4 and JP1	Mouser	571-1-881545-1
Acrylic plates		2		84mmx85mmx3mm opaque black cast acrylic sheet	TAP plastics	
M3 nylon spacers 5mm unthreaded		2		Only if using 3D printed front plate - replace 6mm standoff	Mouser	855-R30-6700594
3mm x 14mm steel pan screw		2		Only if using 3D printed front plate - replace 6mm standoff	McMaster	92005A124