

Bill of Materials							
Part description	Part number	Footprint	Qty	Unit Price	Total Price	Vendor	Link
PCBs [1]							
Main PCB	--		1	\$1.40	\$1.40	JLCPCB	https://jlcpcb.com
Component PCB	--		4	\$1.40	\$5.60	JLCPCB	https://jlcpcb.com
ICs							
PCF8574 SM Chip	296-13108-1-ND - Cut Tape (CT)		3	\$1.86	\$5.58	Digikey	https://www.digikey.com
ADS1115 Chip	1528-1461-ND		1	\$14.95	\$14.95	Digikey	https://www.digikey.com
Enclosure							
Magnetic Connectors	5358		2	\$6.50	\$13.00	Adafruit	https://www.adafruit.com
Pogo Pins	ED8180-ND		16	\$0.42	\$6.72	Digikey	https://www.digikey.com
3D Print (Main Board, Joystick, Keypad, Rotary Encoder)	--		0.33	\$30.00	\$9.90	Prusament	https://prusament.com
Solder	KE1101-ND		0.3	\$54.00	\$16.20	Digikey	https://www.digikey.com
Stranded Wire	1175-1015-24-1-2000-004-1-TS-DS-ND		1	\$0.58	\$0.58	Digikey	https://www.digikey.com
Crimp	WM18889TR-ND - Tape & Reel (TR)		4	\$0.08	\$0.31	Digikey	https://www.digikey.com
Main Panel							
ESP 32-S3	5477	https://learn.adafruit.com	1	\$19.95	\$19.95	Digikey	https://www.digikey.com
Capacitive Touchscreen	1528-2848-ND		1	\$29.95	\$29.95	Digikey	https://www.digikey.com
LED	732-5008-ND		1	\$0.15	\$0.15	Digikey	https://www.digikey.com
Buttons	EG5455-ND		2	\$0.36	\$0.72	Digikey	https://www.digikey.com
Barrel Jack Connector	839-54-00166-ND		1	\$0.74	\$0.74	Digikey	https://www.digikey.com
4x1 Header,	S1131EC-20-ND		1	\$0.56	\$0.56	Digikey	https://www.digikey.com
20x1 Header	732-61302011821-ND		2	\$0.93	\$1.86	Digikey	https://www.digikey.com
I2C Components							
Rotary Encoder	377		1	\$4.50	\$4.50	Adafruit	https://www.adafruit.com
Keypad	3845		1	\$6.50	\$6.50	Adafruit	https://www.adafruit.com
Joystick	512		1	\$5.95	\$5.95	Adafruit	https://www.adafruit.com
Wiring							
Barrel Jack to USB Cable	1528-2429-ND		1	\$6.50	\$6.50	Digikey	https://www.digikey.com
UART (4-wire) Cable*	--		1	\$1.00	\$1.00	Custom	
Total Cost:							
					\$152.62		

[1] These are example categories. Look at the example.