

Reference	Description	Value	Quantity	Dat sheet or Part Link	Part Cost	Extended
BT1	AA Battery pack	6v Battery Pack	1	AliExpress	\$1.27	\$1.27
C1,C3	Capacitor, 0805 SMT	0.1uf	2	MLCC substitute or Jameco	\$0.10	\$0.20
C2	Electrolytic Capacitor, Radial	1uf	1	Mouser/Jameco/AliExpress	\$0.10	\$0.10
C4	Electrolytic Capacitor, 0805 SMT	2.2uf	1	Mouser/Jameco/AliExpress	\$0.10	\$0.10
C5	Electrolytic Capacitor, 0805 SMT	10uf	1	Mouser/Jameco/AliExpress	\$0.10	\$0.10
C6	Electrolytic Capacitor, Radial	10uf	1	Mouser/Jameco/AliExpress	\$0.10	\$0.10
D1	1.8,3mm, 0805 Blue/Purple LED TH/SMT	PROG_LED	1	Mouser/Jameco/AliExpress	\$0.25	\$0.25
D2	Signal diode	1N914/1N4148	1	Mouser/Jameco/AliExpress	\$0.10	\$0.10
D3	Power diode, SOD-123FL SMT	SL1A	1	Mouser/Jameco/AliExpress	\$0.10	\$0.10
D10, D11, D12, D13, D4, D5, D6, D7, D8, D9	RED Ultra Bright LED, 5mm	LED	10	AliExpress	\$0.25	\$2.50
H1,H2	6/32 mounting screw and nut	Ant Mount	2	Any hardware store	\$0.10	\$0.20
H3,H4,H5,H6	M3 or 4-40 Screws,nuts, 10mm standoff	Battery Mount	4	AliExpress	\$0.03	\$0.12
LS1	30x20x4.6mm 2W mini speaker	Speaker	1	AliExpress. https://www.aliexpress.us/item/3256807204066808.html	\$1.20	\$1.20
R6	0805 SMT	270-330	1	Mouser	\$0.10	\$0.10
R7	0805 SMT	10k	1	Mouser	\$0.10	\$0.10
R8	1/4w Resistor	47k	1	Mouser	\$0.10	\$0.10
R9	0805 SMT	1.8k	1	Mouser	\$0.10	\$0.10
R10	1/4w Resistor	1.8k	2	Mouser	\$0.10	\$0.20
R11	1/4w Resistor	330k	1	Mouser	\$0.10	\$0.10
R12	1/4w Resistor	1.2k	1	Mouser	\$0.10	\$0.10
R13	1/4w Resistor	1.5k	1	Mouser	\$0.10	\$0.10
R14	1/4w Resistor		33	1 Mouser	\$0.10	\$0.10
RV1	Variable Resistor	1k	1	Mouser	\$0.30	\$0.30
SW1	Rotary BCD Switch	PT65501	1	Mouser / Digikey	\$7.90	\$7.90
SW3,SW4,SW5	6mm Push button sw	Tactile Switches,6X6	3	Mouser/AliExpress	\$0.40	\$1.20
U1	ATTiny1604, SOIC14, SMT	ATTiny1604-SS	1	Mouser, http://www1.microchip.com/downloads/en/DeviceDoc/atmel-2586-avr-8-bit-microcontroller-attiny25-attiny45-attiny85_datasheet.pdf	\$0.75	\$0.75
U2	DfPlayer Mini/MP3-TF-16P	MP3-TF-16P	1	AliExpress	\$10.00	\$10.00
U3	5v LDO regulator. TO-252	LF50CDT	1	Mouser	\$0.35	\$0.35
U5	LED VU Display IC, DIP18	LM3914N	1	AliExpress	\$0.27	\$0.27
VU1	DC Meter 0-15 VDC (Base 55x49mm, 47mm Dia Hole)	MU-45	1	MU-45 DC Meter 0-15v (52x58mm, 47mm hole size), AliExpress: https://www.aliexpress.us/item/3256808562128482.html	\$4.67	\$4.67
ANT1	5 Section Metal Full-Channel Telescopic Antenna, 8.3cm (3.27"), Extended 25cm (9.84")		1	https://www.aliexpress.us/item/3256806930715477.html	\$1.72	\$1.72
AA Battery Pack Holder	3D printed part	6v Battery Pack Mount, 3D printed	1		\$1.20	\$1.20
SD Card	2-8 GB Mini SD Card	2-8GB	1		\$2.45	\$2.45
Magnet Wire	26 AWG (.415mm) red enameled wire. 2 layers of wire wrap.		1		\$1.00	\$1.00
PCB	10 LED EMF Meter r2 PCB		1		\$6.00	\$6.00
* RL1-2	Low signal relay (12.5x7.5x10 mm)	G5V-1, 5VDC	2	AliExpress: https://www.aliexpress.us/item/3256808790911517.html	\$0.76	\$1.52
*U6-11	Misc ICs 2x 14p, 3x 16p, 1 x 18p		6		\$0.30	\$1.80
*XC1-9	Surface mount crystals HC-495	10.240MHz + Mixed	10	Mouser/AliExpress	\$0.20	\$2.00
* Items are cosmetic only						

Total Cost	\$50.47
Assembly	\$0.00
	\$50.47