

Component	Quantity	Remarks	PCB Reference Number
470Ω Resistor	7	Yellow, Purple, Black, Black, Brown	R1, R2, R3, R4, R5, R6, R7
4.7KΩ Resistor	5	Yellow, Purple, Black, Brown, Brown	R8, R9, R10, R11, R14
10KΩ Resistor	1	Brown, Black, Black, Red, Brown	R12
1KΩ Resistor	1	Brown, Black, Black, Brown, Brown	R13
10μF Capacitor	2	25v 10μF Radial Capacitor	C1, C3
0.1μF Capacitor	1	104 written on the Ceramic Capacitor	C2
30pF Capacitor	2	30 written on the Ceramic Capacitor	C4, C5
PNP Transistor	4	S9012 PNP transistor, read carefully.	Q1, Q2, Q3, Q4
12Mhz Crystal	1	External Crystal for Microcontroller	Y1
Push Button Switch	3	Read PCB for function	S1, S2, S3
8 Bit ATmega IC	1	AT89C2051, pay attention to DIP	IC1
20 Pin Socket	1	Allows you to remove chip and replace	N/A
Digital Thermometer	1	18B20 (-55°C to +125°C)	IC2
Three Digit S.S.D.	1	Seven Segment Display (RED)	DS1
2 Pin Screw Terminal	2	Vcc supplied is X1, output is X2	X1, X2
3mm Red LED	1	Cut side will go inside long line	LED1
PCB	1	Standard Green PCB	N/A

Flip the board on the backside, you should see GND near the terminal blocks. GND is where ground should be inserted and the other pin is Vcc. Plug in the battery 5v into the bottom X1 connector.

In X2 the voltage will be outputted only if the red LED turns on. Turn on the device by pressing S1.

Turn off the device by long pressing S1, after seeing - - - on the screen press s1 again to confirm.

Press S1 when the unit is on to change into configuration mode and use either s2 for up and s3 as down to set the temperature in Celsius when the LED should be active.

