

Two Tone Siren

In this circuit a LM358 IC is used to form two oscillators. The one has a low frequency (1Hz) while the other oscillates at a high frequency (1KHz). The low frequency oscillator modulates the high frequency to make a two tone siren.

Happy building if you have any questions please contact us ☺

Tools required

1. Electronic Workstation
2. Flat screwdriver 2mm
3. Flat screwdriver 1.5mm
4. Side cutter 125mm
5. Sharp nose pliers 130mm

Component identification

The following instructions will help you build a Light Dark Switch on to your Electronic Workstation. But you will only be able to follow these instructions if you can identify the electronic components used in these instructions.

I have created a electronic component document dedicated to the identification of electronic components. You can download this document from the foot section of our web site (www.electronics123.co.za)

Component preparation

Variable resistor: When viewed from the bottom the terminal's will look like this (I) now bend it all three terminals like this (/) bending the terminals at 45° will insure the terminal enter deep into the breadboard sockets.

Resistors: Cut the paper strip of the resistor this will ensure

that no glue is left on the terminal the glue can cause the terminal not to conduct electricity!

Electrolytic Capacitor: Cut the terminals of the electrolytic capacitor to equal lengths you will still be able to find the negative (-) by the white stripe on the body of the electrolytic capacitor.

IC: The terminal of the IC is at a slight angel bend them to a 90° angel.

Components required

4cm Yellow connecting wire

x1

4cm Black connecting wire

x1

4cm Red connecting wire

x1

4cm Blue connecting wire

x1

7cm Red connecting wire

x1

7cm Yellow connecting wire

x1

7cm Green connecting wire

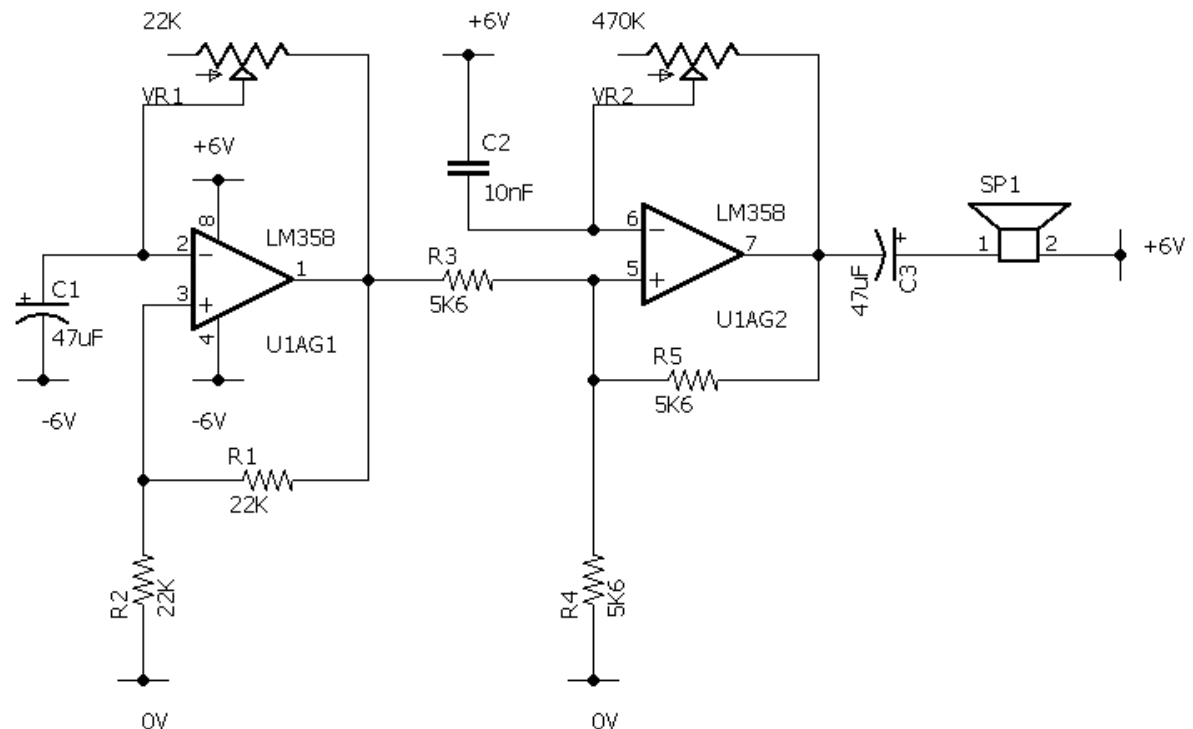
x1

7cm Blue connecting wire

x1

7cm White connecting wire

x1



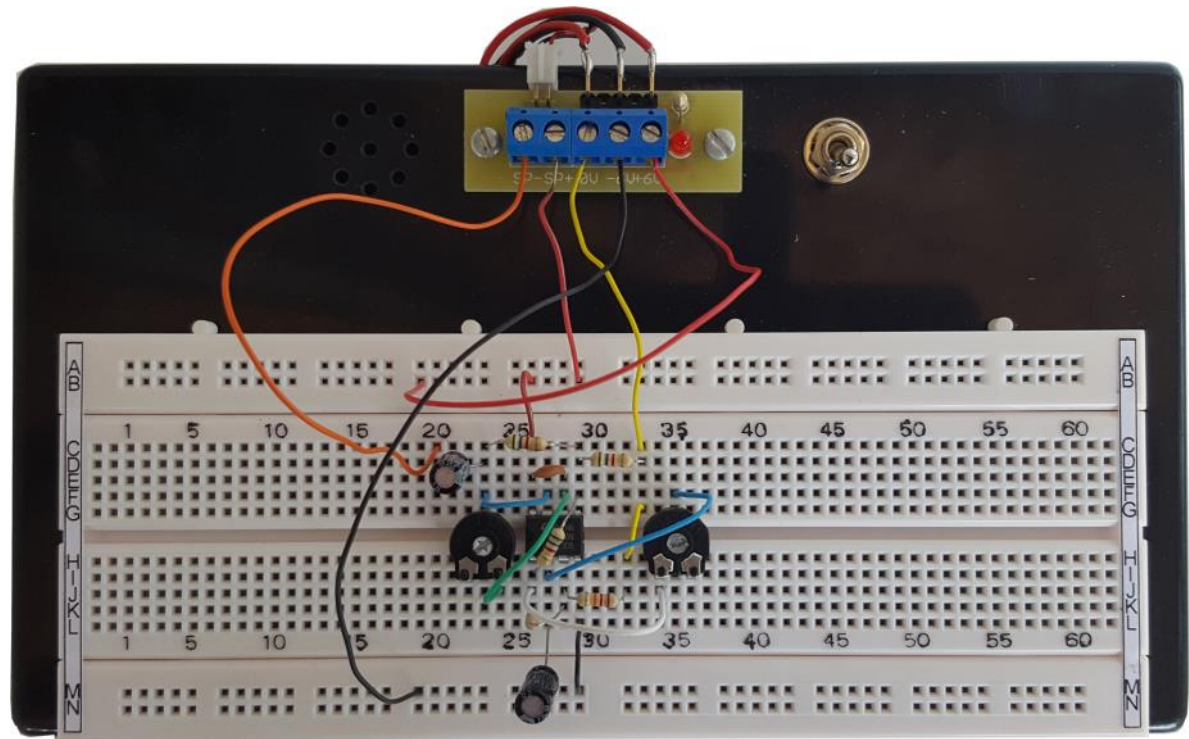
15cm Red connecting wire	x1
15cm Black connecting wire	x1
15cm Orange connecting wire	x1
LM358 IC (DIP8)	HB084 x 1
5.6kΩ Resistor 1/4 Watt 5% (green, blue, red, gold)	DB065 x3
22kΩ Resistor 1/4 Watt 5% (red, red, orange, gold)	DB072 x2
10nF 50V Ceramic Capacitor	DB197 x 1
47μF 16V Electrolytic Capacitor	HB185 x2
22KΩ Variable Resistor	DB300 x 1
470KΩ Variable Resistor	DB169 x 1

Configuration table

LM358 IC (reference mark must show towards the left)	
Pin1	H26
Pin8	G26
10nF Ceramic Capacitor (0.01 or 103)	E26 - E28
22KΩ Variable Resistor	
T1	I34
T2	G35
T3	I36
470KΩ Variable Resistor	
T1	I22
T2	G23
T3	I24
5.6kΩ Resistor 1/4 Watt 5% (green, blue, red, gold)	C23 - C29

5.6kΩ Resistor 1/4 Watt 5% (green, blue, red, gold)	D29 - D33
5.6kΩ Resistor 1/4 Watt 5% (green, blue, red, gold)	I26 - F29
22kΩ Resistor 1/4 Watt 5% (red, red, orange, gold)	J28 - J32
22kΩ Resistor 1/4 Watt 5% (red, red, orange, gold)	K26 - K28
47μF 16V Electrolytic Capacitor (+) Terminal	D20
(-) Terminal	D23
47μF 16V Electrolytic Capacitor (+) Terminal	L27

(-) Terminal	M27
4cm Yellow connecting wire	H32 - G33
4cm Black connecting wire	L29 - M29
4cm Red connecting wire	B26 - C26
4cm Blue connecting wire	F23 - F27
7cm Red connecting wire	B29 -(SP-)
7cm Yellow connecting wire	C33 - (0V)
7cm Green connecting wire	J24 - F28
7cm Blue connecting wire	I27 - F35
7cm White connection wire	J26 - J34
15cm Orange connecting wire	C20 - (SP+)
15cm Red connecting wire	B19 - (+6V)
15cm Black connecting wire	M19 - (-6V)



Company details

Company name: Electronics123 Retail Store CC
Physical address: Cnr. Codonia & Moulton Str. Waverley,
0135, Pretoria, South Africa.
Postal address: PO Box 31113, Waverley, 0135, South
Africa
Tel: 012 332 2356
Fax: 012 332 0487
E-mail: jaco@electronics123.co.za
Web site: www.electronics123.co.za