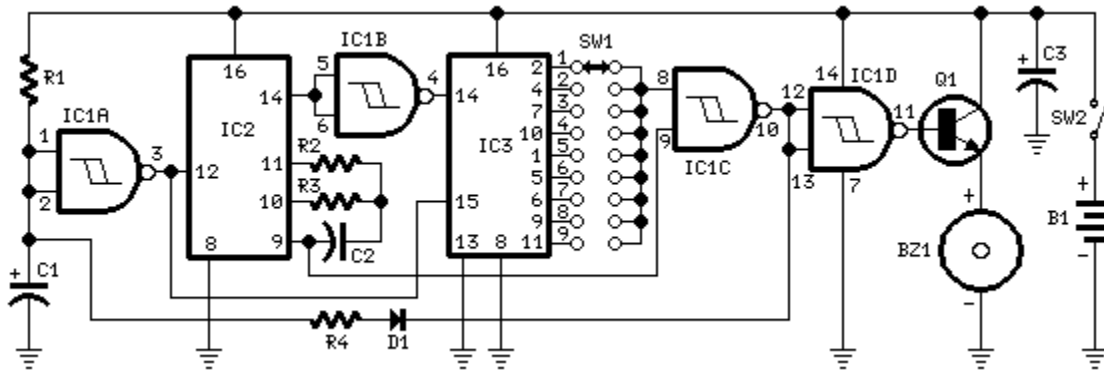


Jogging Timer

**3V Battery powered
Beeps after a fixed number of minutes**

Circuit diagram:



Parts:

R1 _____ 47K 1/4W Resistor
R2 _____ 10M 1/4W Resistor
R3 _____ 1M 1/4W Resistor
R4 _____ 12K 1/4W Resistor (see notes)

C1,C3 _____ 10µF 25V Electrolytic Capacitors
C2 _____ 100nF 63V Polyester Capacitor

D1 _____ 1N4148 75V 150mA Diode

IC1 _____ 4093 Quad 2 input Schmitt NAND Gate IC
IC2 _____ 4060 14 stage ripple counter and oscillator IC
IC3 _____ 4017 Decade counter with 10 decoded outputs IC

Q1 _____ BC337 45V 800mA NPN Transistor

SW1 _____ 1 pole 9 ways Rotary Switch (see notes)
SW2 _____ SPST Slider Switch

BZ1 _____ Piezo sounder (incorporating 3KHz oscillator)

B1 _____ 3V Battery (two 1.5V AA or AAA cells in series etc.)

Device purpose:

This circuit was developed since a number of visitors of this website requested a timer capable of emitting a beep after one, two, three minutes and so on, for jogging purposes.

As shown in the Circuit diagram, SW1 is a 1 pole 9 ways Rotary Switch. Setting the switch in position 1, the Piezo sounder emits three short beeps every minute. In position 2 the same thing happens after 2 minutes, and so on, reaching a maximum interval of 9 minutes in position 9.

Notes:

- | Needing only one time set, rotary switch can be replaced by an hard-wired link.
 - | A DIP-Switch can be used in place of the rotary type. Pay attention to use only a switch at a time, or the device could be damaged.
 - | Varying R4 from 10K to 15K you can obtain more or less than three short beeps after the preset time delay.
 - | To obtain a one-second beep only, after the preset time delay, disconnect pin 9 of IC1C from pin 9 of IC2 and connect it to pin 8 of IC1C.
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