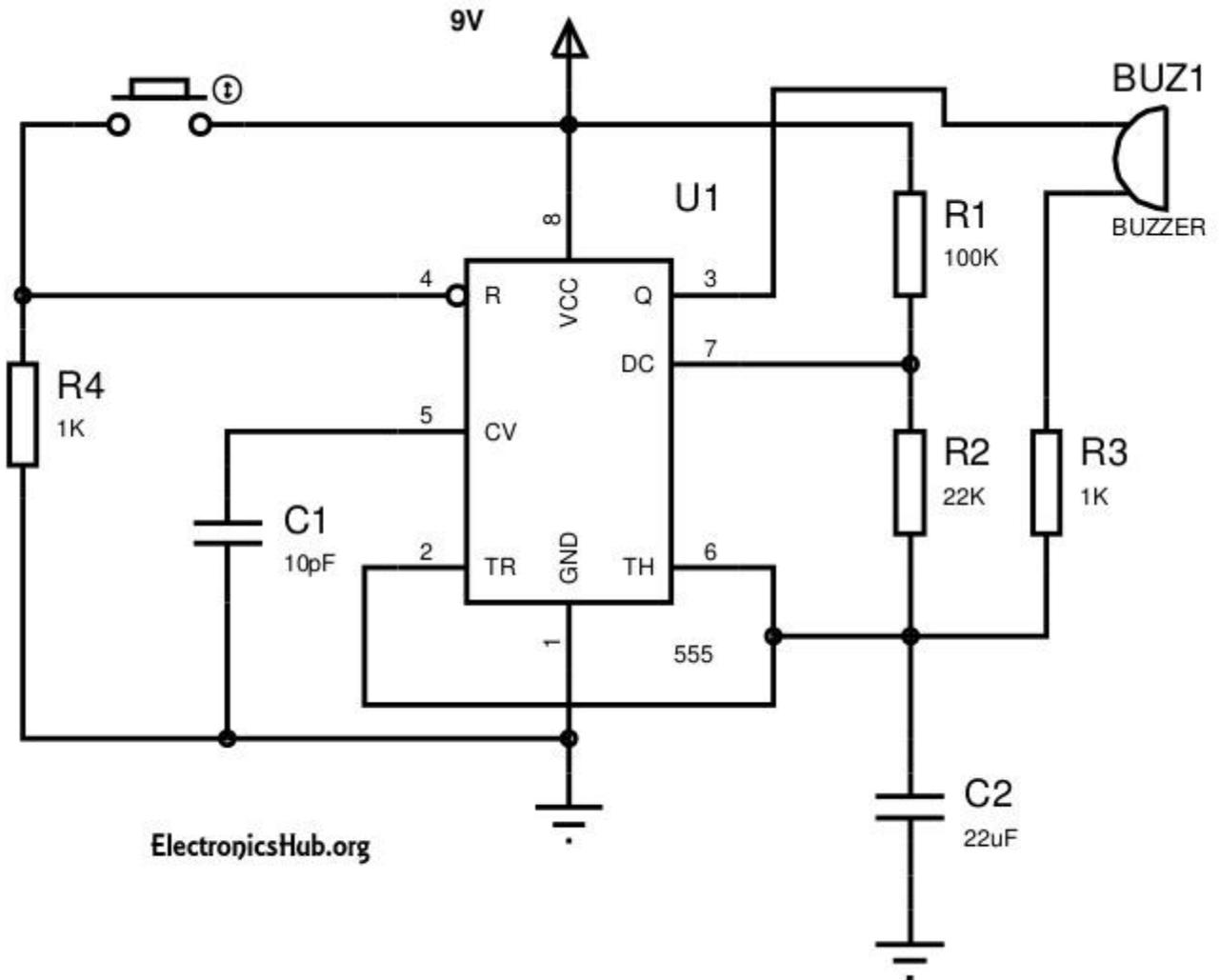


# Panic Alarm System Circuit and Its Working

There can be any sudden situation of panic. It could be because of an intruder entering our house or bad health status at which we are unable to intimate to the people around us. Situations can be many for panicking. In this article we shall see how to make panic alarm which can help us to intimate others regarding our bad situation without any delay.

## Panic Alarm Circuit Diagram:



This circuit is made with a low cost hardware using IC 555 timer, buzzer, a few resistors and capacitors. It is made to be working reliably as it has simple to use and not so sensitive hardware like 555 timer, ceramic buzzer, capacitors, etc. Although no exclusive arrangement is used to make any compensation for the variable parameters, the circuit by default is made to be robust and easy to use. It is very user friendly with a single button to be pressed to handle the panicking situation without any trouble.

The IC 555 is used in the astable mode with the frequency depending on the values of resistors R1, R2 and C2. The value of R1=100K ohm, R2=22Kohm and C2=22K-ohm. By substituting the given parameters in the respective formulas for IC

555 in astable mode, we get the following values. The frequency of operation of the circuit is given by 0.000455Hz. By finding the time period of the circuit by using the frequency information, we get the time period of the circuit as 2.22 seconds. This means the circuit has a on -off repeating time period of about 2.2 seconds.

By analyzing the ON and OFF time period of the panic alarm circuit given above, we find that the circuit will remain on for about 1.88 seconds and off for about 0.339 seconds.

The circuit is in the disabled mode when the button is not pressed and hence the alarm will not function when the button is not pressed. Although the power supply will be supplied to the IC 555 all the time, the circuit will operate in the monostable mode only when the IC is enabled. The IC is in the enable mode only when pin 4 of the 555 IC is given a high voltage. This happens only when the button is pressed. The button can be made to have a plastic enclosure to have a better visibility and ease of access to it.

Source: <http://www.electronicshub.org/panic-alarm/>