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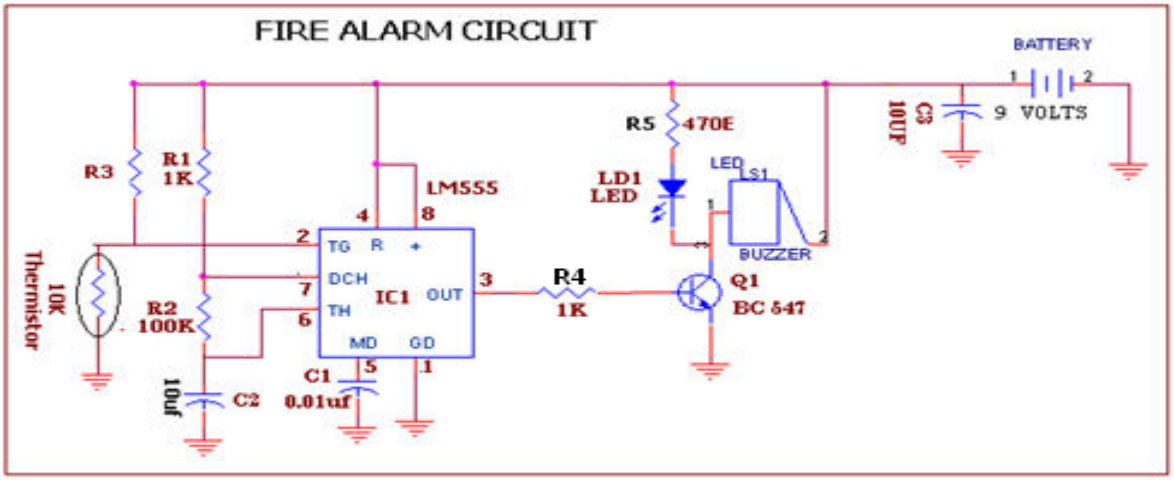
Fire Alarm:



The main sensing component of this circuit is a thermistor. A thermistor is a type of resistor whose resistance value changes with change in temperature resulting in change in voltage.
Using this variation in voltage, a 555 based monostable trigger circuit is devised to activate an alarm. A thermistor when heated up with fire, its resistance value goes low resulting in a negative trigger voltage to pin no.2 of IC 555. The 555 IC is configured in a monostable mode to switch ON its output for 2 seconds atleast. The switch ON time can be increased by increasing R2 or C2.
The IC 555 switches ON a buzzer connected to pin no.3 using an NPN Transistor BC 547.
Circuit is sourced by a 9volt Battery.

Components used: R1 = 1k resistor, R2 = 100k resistor, R3 = 4k7 Resistor, R4 = 1k resistor, R5 = 470 ohms/E resistor, C1 = 0.01uf capacitor, C2 = 10uf capacitor, C3 = 10uf capacitor, Q1 = BC 547 NPN, Transistor, LD1 = L E D, IC 1 = LM 555 (with base), Battery = 9volt, 12 volt load = relay, Battery snapper, Buzzer.