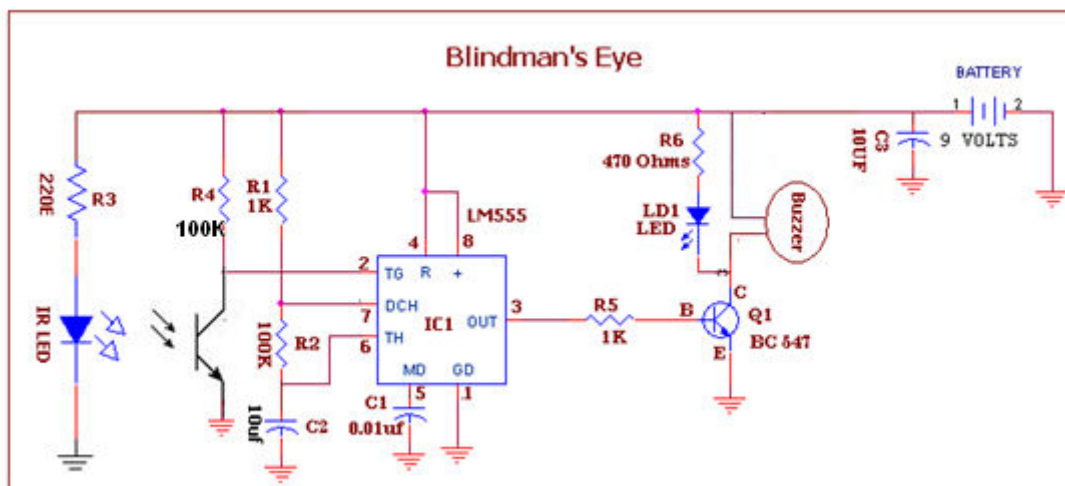


Blindman's eye:



This circuit is used to acknowledge an obstacle for a blind person. An alarm is raised automatically when a blind person is about to go through an obstacle. This circuit uses a reflective optic sensor, (Photo transistor & Infrared Transmitter)The infrared transmitter transmits IR rays when sourced with a power supply as a result, These rays get reflected from an obstacle and falls over a photo transistor which in turn it triggers a 555 IC at its Pin no.2. That is to say that when the Pin no.2 gets a negative trigger voltage from the photo transistor, its switches its output for a period of 2 seconds, which is decided by R1, R2 & C2 of the circuit. This process is called monostable triggering. The output switches ON a buzzer using a NPN transistor BC 547. This circuit is operated with a 9v battery.

Components used: R1 = 1k resistor, R2 = 100k resistor, R3 = 220E Resistor, R4 = 100k resistor, R5 = 1k resistor, R6 = 470 ohms, 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), IR LEDs, Battery = 9volt, Battery snapper, Buzzer.

