

# Motion Detection Alarm

## **Introduction:**

The first motion detector was invented in the early 1950s by Samuel Bango, and which was a burglar alarm. He applied the fundamentals of a radar to ultrasonic waves – a frequency to detect fire or thief and that which human beings cannot hear. Samuel motion detector is based on the principle of Doppler Effect. Nowadays, most of the motion detectors work on the principle of Samuel Bango's detector. IR sensors and microwave sensors can detect motion by the alterations in the frequencies they emit.

Motion detectors are used as security systems in banks, offices and shopping malls, and also as intruder alarm in home. The prevailing motion detectors can stop serious accidents by sensing the persons who are in close proximity to the detector. We can observe motion detectors in shopping malls or stores with automatic doors. The main element in the motion detector circuit is the dual infrared reflective sensor or any other detecting sensor.

## Applications:

- Offices, banks, shopping malls and in intruder alarm in homes.
- Automatic light control and counting machines.
- Many systems like home-automation, energy-efficient systems and control systems and automatic door opening.

## Block Diagram:

