

Infrared Security System

Features of this circuit are:

1. **Motion Detection:** Uses IR sensors to detect human or object movement.
2. **Instant Alerts:** Triggers a buzzer, alarm, or notification upon intrusion detection.
3. **Automatic Operation:** Works continuously without manual intervention.
4. **Energy Efficient:** Consumes low power and operates effectively in various environments.
5. **Easy Integration:** Can be connected with security cameras, smart home systems, or IoT devices.
6. **Customizable Sensitivity:** Adjustable detection range based on user requirements.

7.Wireless Capability (Optional): Can send alerts via Wi-Fi or Bluetooth to mobile devices.

8.Tamper Proofing: Detects sensor obstruction or sabotage attempts.

Components required:

- . IR pair (IR LED and Photodiode)
- . 555 timer IC
- . IC LM358
- . Resistor 100, 10k, 100k, 330, 220 ohm
- . Capacitor 10uF
- . Variable resistor – 10k
- . Buzzer

Circuit Diagram:

