

Touch Less Door Bell

<https://www.youtube.com/watch?v=vNYqbWSjdLk>

The Touchless Door Bell is designed to provide a hygienic and convenient way of operating a door bell without physical contact. The system uses an IR sensor to detect the presence of a hand near the door. The detected IR signal is given to an LM358 comparator, which compares the sensor output with a preset reference level. When a hand is detected, the comparator produces a trigger signal to activate the doorbell. This system reduces the need for physical contact, helps improve hygiene, and provides simple and reliable touch-free operation. The project is low-cost, easy to implement, and suitable for homes, offices, hospitals, and other public places.

The main objectives of the project are:

- ☐ To design a touchless door bell system using an IR sensor.
- ☐ To detect a person's hand without physical contact.
- ☐ To use the LM358 comparator for reliable IR signal detection.
- ☐ To activate the doorbell automatically when a hand is detected.
- ☐ To reduce physical contact and improve hygiene.
- ☐ To develop a low-cost, simple, and reliable door bell system.
- ☐ To provide convenient operation for homes, offices, hospitals, and public places.

The major building blocks of this project are:

- 9V HW Battery.
- LM358.
- IR sensor.
- Buzzer.

Block Diagram:

