



# Home Security Alert System – Project


*(By Abhinandan Raj)*



## PROJECT OVERVIEW:-

**THIS PROJECT IS A SMART HOME SECURITY SYSTEM THAT DETECTS ANY MOVEMENT NEAR A DOOR. WHEN A PERSON OR OBJECT COMES CLOSE, THE SYSTEM AUTOMATICALLY TURNS ON A BUZZER TO ALERT YOU. IT IS SIMPLE, EFFECTIVE AND VERY USEFUL FOR HOME SAFETY.**

## How It Works:-

- 1. AN ULTRASONIC SENSOR IS PLACED ABOVE THE DOOR.**
- 2. THE SENSOR CONTINUOUSLY CHECKS IF SOMEONE IS NEAR THE DOOR.**
- 3. WHEN THE SENSOR DETECTS MOVEMENT:**
  - **IT SENDS A SIGNAL TO THE ARDUINO**
  - **THE ARDUINO IMMEDIATELY TURNS THE BUZZER ON** 
- 4. WHEN THE PERSON MOVES AWAY, THE BUZZER TURNS OFF AUTOMATICALLY.**

**THE WHOLE SYSTEM WORKS WITHOUT ANY MANUAL CONTROL – IT'S FULLY AUTOMATIC.**



## COMPONENTS USED

### ✓ 1. ARDUINO UNO

**THE MAIN CONTROLLER THAT READS THE SENSOR DATA AND CONTROLS THE BUZZER.**

### ✓ 2. ULTRASONIC SENSOR (HC-SR04)

**MEASURES DISTANCE AND DETECTS MOVEMENT NEAR THE DOOR.**

### **✓ 3. BUZZER**

**MAKES A LOUD ALERT SOUND WHENEVER THE SENSOR DETECTS SOMEONE.**

### **✓ 4. BREADBOARD**

**USED TO CONNECT ALL WIRES AND COMPONENTS EASILY.**

### **✓ 5. JUMPER WIRES**

**USED TO CREATE THE ELECTRICAL CONNECTIONS.**

### **✓ 6. POPSICLE STICK HOUSE MODEL**

**A CREATIVE MODEL HOUSE BUILT USING WOODEN STICKS TO GIVE THE PROJECT A REALISTIC LOOK.  
THE SENSOR IS PLACED INSIDE THE HOUSE MODEL.**

## **🔗 WHY THIS PROJECT IS USEFUL?**

- ✓ HELPS PROTECT YOUR HOME**
- ✓ VERY EASY TO BUILD**
- ✓ GREAT FOR SCHOOL PROJECTS AND EXHIBITIONS**
- ✓ A REAL WORKING SECURITY SYSTEM**
- ✓ IMPRESSIVE PROJECT FOR A YOUNG TECH CREATOR 🙌**

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## **🔑 WANT THE CODE OR STEP-BY-STEP GUIDE?**

### **👉 NEED THE CODE?**

**FOLLOW THE YOUTUBE CHANNEL “TECHROBOTICS-AR”  
– THE COMPLETE CODE IS AVAILABLE THERE.**

### **👉 WANT THE FULL DETAILED STEP-BY-STEP GUIDE?**

**GET THE PREMIUM VERSION – IT INCLUDES:**

- **WIRING DIAGRAM**
- **FULL EXPLANATION**
- **HOW TO BUILD THE MODEL**
- **HOW TO SET UP THE SENSORS**
- **BONUS TIPS IN ENGLISH**
- **LINK:-**  
**[HTTPS://WWW.YOUTUBE.COM/CHANNEL/UCVHDszWREcVS84PTI5zAMEQ](https://www.youtube.com/channel/UCVHDszWREcVS84PTI5zAMEQ)**