

**Professional Readiness for**

# **Innovation, Employability and Entrepreneurship**

## **SMART HOME**

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# DOOR BUZZER USING ULTRASONIC SENSOR

## CODE:

// Door Alarm using Arduino UNO and Ultrasonic sensor.

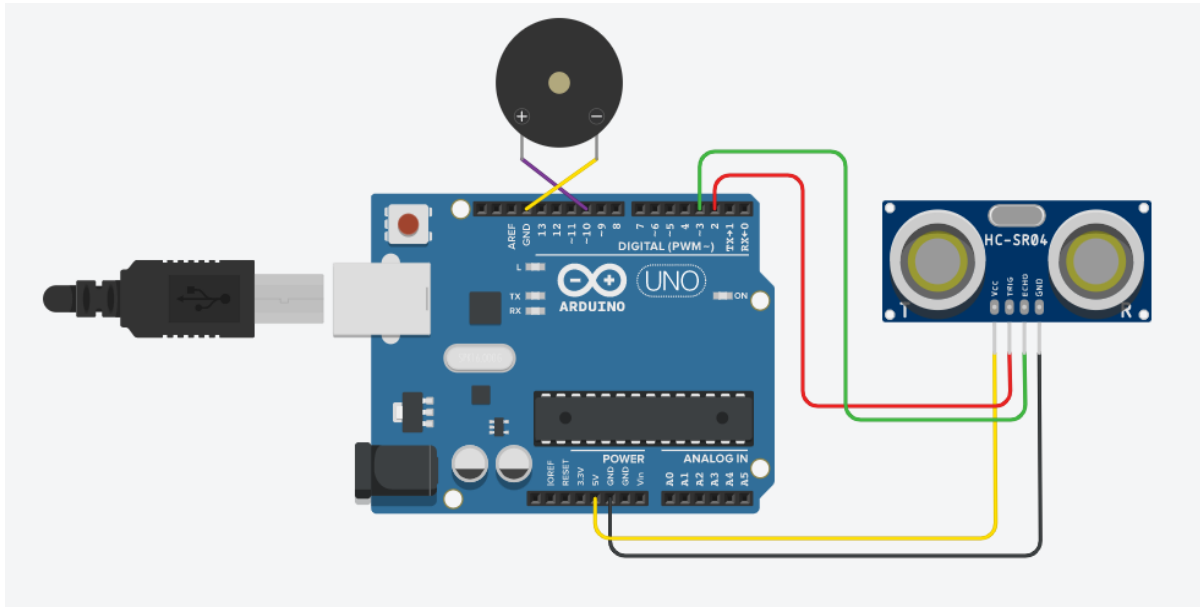
```
int trigger_pin=2;
int echo_pin=3;
int buzzer_pin=10;
int time;
int distance;
void setup ()
{
  Serial.begin(9600);
  pinMode (trigger_pin, OUTPUT);
  pinMode (echo_pin,INPUT);
  pinMode (buzzer_pin,OUTPUT);
}
void loop()
{
  digitalWrite(trigger_pin,HIGH);
  delayMicroseconds(10);
  digitalWrite(trigger_pin,LOW);
  time=pulseIn(echo_pin,HIGH);
  distance=(time*0.034)/2;
  if(distance<=10)
  {
    Serial.println("Door Open");
```

```
Serial.print("Distance=");  
Serial.println(distance);  
digitalWrite(buzzer_pin,HIGH);  
delay(500);  
}  
else  
{  
    Serial.println("Door Closed");  
    Serial.print("Distance");  
    Serial.println(distance);  
    digitalWrite(buzzer_pin,LOW);  
    delay(500);  
}  
}
```

### **TINKERCAD LINK:**

<https://www.tinkercad.com/things/gTJjZ5CfMC-swanky-bojo-bruticus/editel?tenant=circuits>

**FIGURE:**



Whenever anyone comes in the path / range of the ultrasonic sensor, microcontroller detects the distance of the object is in the defined range, it sends the high signal to the buzzer and the buzzer starts beeping.