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SMART HOME

Submitted By:

**Kiyan jose .J**

**961819106033**

**B12-6A2E**

**Door Buzzer Using Ultrasonic Sensor**

CODE:

// Door Alarm Using Arduino UNO and Ultrasonic Sensor

// Code to be used in the Text sub-window of tinkercad.com circuit page

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);

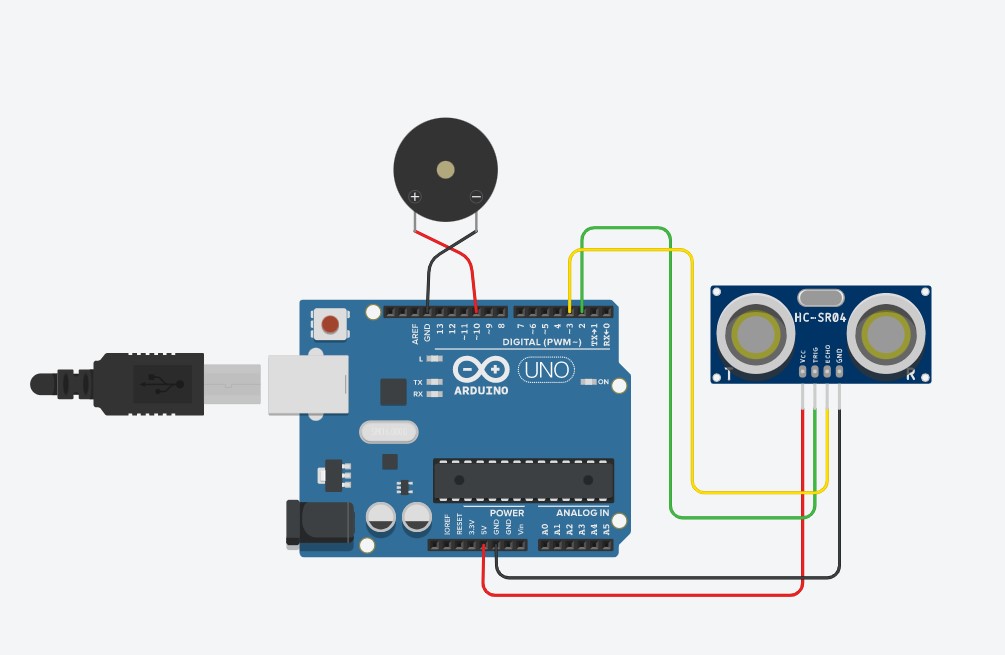
}

}

TINKERCAD LINK:

https://www.tinkercad.com/things/0TKA4P2OgVH-ingenious-kasi/editel

FIGURE:



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