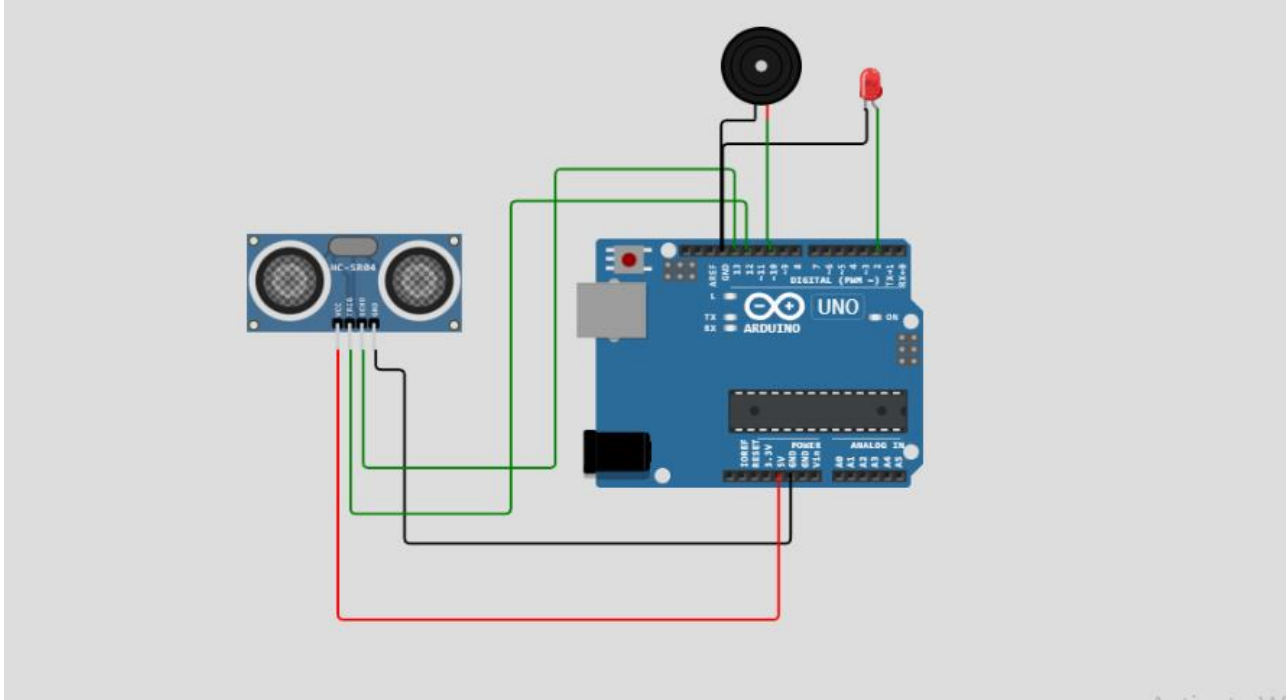


Assignment-1

A Theft alarm in wokwi with sensors LED,BUZZER,(HCSR04)ULTRASONIC,AURDINO UNO



CODE:

```
//define variables
#define triggerPin 12
#define ecoPin 13
#define ledPin 2
#define speakerPin 10
#define pitch 262

double duration, distance;

void setup() {
  // setup for sensor
```

```
Serial.begin(9600);
pinMode(trigerPin,OUTPUT);
pinMode(ecoPin, INPUT);

//setup for LED
pinMode(ledPin, OUTPUT);

//setup for speaker
pinMode(speakerPin, OUTPUT);

}

void loop() {
  // looping sensor
  digitalWrite(trigerPin, LOW);
  delayMicroseconds(2);
  digitalWrite(trigerPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigerPin, LOW);
  delayMicroseconds(2);

  //get duration
  duration=pulseIn(ecoPin,HIGH);

  //calculate distance
  distance=(duration/2)*0.0343;
```

```
//consider maximum width of the door=200cm
```

```
if(distance<200){  
  digitalWrite(ledPin, HIGH);  
  tone(speakerPin,pitch);  
  delay(300);
```

```
  digitalWrite(ledPin, LOW);  
  noTone(speakerPin);  
  delay(300);
```

```
}
```

```
else{  
  digitalWrite(ledPin, LOW);  
  noTone(speakerPin);
```

```
}
```

```
}
```

WOKWI LINK:

<https://wokwi.com/projects/363628604537885697>

OUTPUT:

