

Link

<https://wokwi.com/projects/362993304368939009>

Code

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

double duration, distance;

void setup() {
  //setup for Sensor
  Serial.begin(9600);
  pinMode(triggerPin,OUTPUT);
  pinMode(echoPin,INPUT);

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

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

}

void loop() {
  //looping sensor (Create sound wave)
  digitalWrite(triggerPin, LOW);
```

```
delayMicroseconds(2);
digitalWrite(trigerPin, HIGH);
delayMicroseconds(10);
digitalWrite(trigerPin, LOW);
delayMicroseconds(2);

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

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

//consider maximum width of the door = 200 cm

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

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

Screenshot

