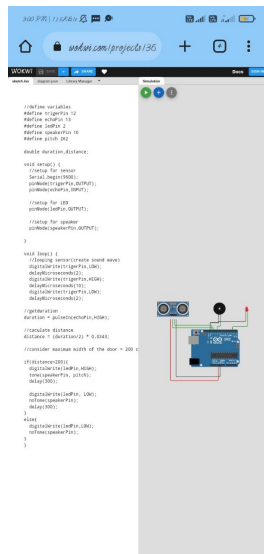


<https://wokwi.com/projects/363150504240885761>



```
//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(triggerPin,HIGH);
  delayMicroseconds(10);
  digitalWrite(triggerPin,LOW);
  delayMicroseconds(2);
```

```
//getduration
duration = pulseIn(echoPin,HIGH);
```

```
//caculate 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);  
}  
}
```