

```
int sensorPin = 7;
```

```
int ledPin = 13;
```

```
void setup() {
```

```
    pinMode(sensorPin, OUTPUT);
```

```
    pinMode(ledPin, OUTPUT);
```

```
    Serial.begin(9600);
```

```
}
```

```
void loop() {
```

```
    long duration;
```

```
    int distance;
```

```
    pinMode(sensorPin, OUTPUT);
```

```
    digitalWrite(sensorPin, HIGH);
```

```
    delayMicroseconds(10);
```

```
    digitalWrite(sensorPin, LOW);
```

```
    pinMode(sensorPin, INPUT);
```

```
    duration = pulseIn(sensorPin, HIGH);
```

```
    distance = duration * 0.034 / 2;
```

```
    Serial.print("Distance: ");
```

```
    Serial.print(distance);
```

```
    Serial.println(" cm");
```

```
    if (distance < 20) {
```

```
    digitalWrite(ledPin, HIGH);  
  } else {  
    digitalWrite(ledPin, LOW);  
  }  
  
  delay(500);  
}
```