

# Arduino codes

```
const int echoPin = 4;
```

```
const int trigPin = 5;
```

```
void setup(){
```

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

```
  pinMode(echoPin, INPUT);
```

```
  pinMode(trigPin, OUTPUT);
```

```
  Serial.println("Ultrasonic sensor:");
```

```
}
```

```
void loop(){
```

```
  float distance = readSensorData();
```

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

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

```
  delay(400);
```

```
}
```

```
float readSensorData(){
```

```
  digitalWrite(trigPin, LOW);
```

```
  delayMicroseconds(2);
```

```
  digitalWrite(trigPin, HIGH);
```

```
  delayMicroseconds(10);
```

```
  digitalWrite(trigPin, LOW);
```

```
  float distance = pulseIn(echoPin, HIGH)/58.00; //Equivalent to (340m/s*1us)/2
```

```
  return distance;
```

```
}
```

```
1  const int echoPin = 4;
2  const int trigPin = 5;
3
4
5  void setup(){
6      Serial.begin(9600);
7      pinMode(echoPin, INPUT);
8      pinMode(trigPin, OUTPUT);
9      Serial.println("Ultrasonic sensor:");
10 }
11
12 void loop(){
13     float distance = readSensorData();
14     Serial.print(distance);
15     Serial.println(" cm");
16     delay(400);
17 }
18
19 float readSensorData(){
20     digitalWrite(trigPin, LOW);
21     delayMicroseconds(2);
22     digitalWrite(trigPin, HIGH);
23     delayMicroseconds(10);
24     digitalWrite(trigPin, LOW);
25     float distance = pulseIn(echoPin, HIGH)/58.00; //Equivalent to (340m/s*1us)/2
26     return distance;
27 }
28
```

## Code in Arduino