

```
1  |const int pingPin = 13;
2  int inPin = 12;
3  void setup() {
4  Serial.begin(9600);
5  }
6  void loop()
7  {
8  long duration, cm;
9  pinMode(pingPin, OUTPUT);
10 digitalWrite(pingPin, LOW);
11 delayMicroseconds(2);
12 digitalWrite(pingPin, HIGH);
13 delayMicroseconds(5);
14 digitalWrite(pingPin, LOW);
15 pinMode(inPin, INPUT);
16 duration = pulseIn(inPin, HIGH);
17 cm = microsecondsToCentimeters(duration);
18 Serial.print(cm);
19 Serial.print("cm");
20 Serial.println();
21 delay(100);
22 }
23 long microsecondsToCentimeters(long microseconds)
24 {
25 // The speed of sound is 340 m/s or 29 microseconds per
   • centimeter.
26 // The ping travels out and back, so to find the distance of the
27 // object we take half of the distance travelled.
28 return microseconds / 29 / 2;
29 }
30
```