

```

int trigPin = 11;  // Trigger
int echoPin = 12;  // Echo
int ledPin = 13;   // LED
int ledPin1=10;
long duration, cm;
#include <Servo.h>

int pos = 0;

Servo servo_9;

void setup() {
  //Serial Port begin
  Serial.begin (9600);
  //Define inputs and outputs
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  pinMode(ledPin, OUTPUT);
  pinMode(ledPin1, OUTPUT);
  servo_9.attach(9, 500, 2500);
}

void loop() {
  // The sensor is triggered by a HIGH pulse of 10 or more microseconds.
  // Give a short LOW pulse beforehand to ensure a clean HIGH pulse:
  digitalWrite(trigPin, LOW);
  delayMicroseconds(5);
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);

  // Read the signal from the sensor: a HIGH pulse whose
  // duration is the time (in microseconds) from the sending
  // of the ping to the reception of its echo off of an object.
  duration = pulseIn(echoPin, HIGH);

  // Convert the time into a distance
  cm = (duration/2) / 29.1;  // Divide by 29.1 or multiply by 0.0343

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

  if (cm < 9) {

```

```
digitalWrite(ledPin, HIGH);
for (pos = 0; pos <= 180; pos += 1) {
  // tell servo to go to position in variable 'pos'
  servo_9.write(pos);
  // wait 15 ms for servo to reach the position
  delay(15); // Wait for 15 millisecond(s)
  break;
}
} else {
  digitalWrite(ledPin, LOW);
}
}
if (cm > 9) {
  digitalWrite(ledPin1, HIGH);
  for (pos = 180; pos >= 0; pos -= 1) {
    // tell servo to go to position in variable 'pos'
    servo_9.write(pos);
    // wait 15 ms for servo to reach the position
    delay(15); // Wait for 15 millisecond(s)
    break;
  }
} else {
  digitalWrite(ledPin1, LOW);
}
}
delay(250);
}
```