

```
#include <Servo.h> //servo library

Servo servo;

int trigPin = 5;

int echoPin = 6;

int servoPin = 7;

int led= 10;

long duration, dist, average;

long aver[3]; //array for average


void setup() {

    Serial.begin(9600);

    servo.attach(servoPin);

    pinMode(trigPin, OUTPUT);

    pinMode(echoPin, INPUT);

    servo.write(0);    //close cap on power on

    delay(100);

    servo.detach();

}


void measure() {

    digitalWrite(10,HIGH);

    digitalWrite(trigPin, LOW);

    delayMicroseconds(5);

    digitalWrite(trigPin, HIGH);

    delayMicroseconds(15);

    digitalWrite(trigPin, LOW);
```

```

pinMode(echoPin, INPUT);

duration = pulseIn(echoPin, HIGH);

dist = (duration/2) / 29.1;  //obtain distance
}

void loop() {
  for (int i=0;i<=2;i++) {  //average distance
    measure();
    aver[i]=dist;
    delay(10);           //delay between measurements
  }
  dist=(aver[0]+aver[1]+aver[2])/3;

  if ( dist<50 ) {
    //Change distance as per your need
    servo.attach(servoPin);
    delay(1);
    servo.write(0);
    delay(3000);
    servo.write(150);
    delay(1000);
    servo.detach();
  }
  Serial.print(dist);
}

```