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#include <Servo.h>

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);
```

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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<10)
  {
    //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);
}

```