

```

#include <Servo.h>           // Servo library

int a;

int servoPin1=13;
int servoPin2=12;
int servoPos1=0;
int servoPos2=180;
int TrigPin=10;    //Sensor trig pin connected to pin 13
int EchoPin=9;    //Sensor echo pin connected to pin 10
int irPin=11;
int ledPin=3;
float pingTime;    //time taken by ping to hit and return
float SpeedOfSound=334; //variable to measure speed of sound
float targetDistance;
Servo myServo1;    // named the servo to work with it
Servo myServo2;

void setup() {
  pinMode(TrigPin,OUTPUT); //trig pin is set to output
  pinMode(EchoPin,INPUT); // echo pin is set to input
  pinMode(irPin,INPUT);
  pinMode(ledPin,OUTPUT);
  Serial.begin(9600);
  myServo1.attach(servoPin1); // servo is attached to servoPin because its not a simple output
device arduino should know where it is attached
  myServo2.attach(servoPin2);
}

void loop() {

```

```
digitalWrite(TrigPin,LOW); //set trig pin to low
delayMicroseconds(500); //pause for signal to settle
digitalWrite(TrigPin,HIGH); //set trig pin to high
delayMicroseconds(10); //pause with signal out
digitalWrite(TrigPin,LOW); //trig pin set to low again to finish trigger pulse
```

```
pingTime=pulseIn(EchoPin,HIGH);
targetDistance=SpeedOfSound*pingTime/2000;
Serial.print("Target distance is ");
Serial.print(targetDistance);
Serial.println(" mm");
```

```
a=digitalRead(irPin);
Serial.println(a);
if(a==HIGH){
  Serial.println(" No object detected");
  digitalWrite(ledPin,LOW);
  myServo1.write(servoPos1);
  if(targetDistance>1000){
    myServo2.write(servoPos1);
  }
}
else{
  Serial.println("object detected");
  digitalWrite(ledPin,HIGH);
  myServo1.write(servoPos2);
```

```
myServo2.write(servoPos2);

if(targetDistance<1000){
  myServo2.write(servoPos2);
  delay(1000);
  Serial.println("wahi pe hai");
}
else{
  myServo2.write(servoPos1);
}
}
delay(2000);
}
```