# include <Servo.h>

#define trigpin 5//set trigpin

#define echopin 6//set echopin

Servo myservo;// declare servo name type servo

 int duration, distance;//declare variable for unltrasonic sensor

void setup() {

 Serial.begin(9600);

 pinMode(trigpin, OUTPUT);

 pinMode(echopin, INPUT);

 myservo.attach(7);// attach your servo

myservo.writeMicroseconds(1500);

 // put your setup code here, to run once:

}

void loop() {

 myservo.write(90);// always set servo to 90 to position it to the middle

//ultrasonic code

 digitalWrite(trigpin,HIGH);

 \_delay\_ms(500);

 digitalWrite(trigpin, LOW);

 duration=pulseIn(echopin,HIGH);

 distance=(duration/2)/29.1;

 {

 if(distance < 15)// if ultrasonic sensor detects an obstacle less than 20cm in 90 degree angle.

 {

 myservo.write(0); //servo rotates at full speed to the right

 delay(600);

}

else

{

 myservo.write(180);// else servo stays at 90 degree angle.

 delay(600);

}}

 Serial.print("cm"); //print distance unit cm

Serial.println(distance);//distance

 delay(600);

 // put your main code here, to run repeatedly:

}