Arduino Code

```
#define speedL 10
#define IN1 9
#define IN2 8
#define IN3 7
#define IN4 6
#define speedR 5
#define sensorR 2
#define sensorM 4
#define sensorL 3
#define trig 11
#define echo 12
#define MAX_DISTANCE 100
#include<NewPing.h>
long duration,distance;
int sl=0;
int sm=0;
int sr=0;
NewPing sonar(trig, echo, MAX_DISTANCE);
void setup() {Serial.begin(9600);
for(int i=5;i<=11;i++)
{
pinMode(i, OUTPUT);
}
pinMode(sensorR, INPUT);
```

```
pinMode(sensorM, INPUT);
pinMode(sensorL, INPUT);
pinMode(echo, INPUT);
}
void Ultrasonic(){
digitalWrite(trig, LOW);
delayMicroseconds(2);
digitalWrite(trig, HIGH);
delayMicroseconds(10);
digitalWrite(trig, LOW);
duration = pulseIn(echo, HIGH);
distance = (duration/2) * 0.0343;
}

void right()
{
digitalWrite(IN1, LOW);
digitalWrite(IN2, LOW);
digitalWrite(IN3, HIGH);
digitalWrite(IN4, LOW);
analogWrite(speedL,0);
analogWrite(speedR,160);
}
void left()
{
digitalWrite(IN1, HIGH);
digitalWrite(IN2, LOW);
digitalWrite(IN3, LOW);
digitalWrite(IN4, LOW);
```

```
analogWrite(speedL,160);
analogWrite(speedR,0);
}
void stopp(){
digitalWrite(IN1, LOW);
digitalWrite(IN2, LOW);
digitalWrite(IN3, LOW);
digitalWrite(IN4, LOW);
analogWrite(speedL,0);
analogWrite(speedR,0);
}
void loop(){


int distance = sonar.ping_cm();
if (distance == 0) {
  distance = 30;
}
if(distance <=15) {

   stopp();
  delay(70);
  right();
  delay(390);
  forword();
  delay(550);
  left();
  delay(650);
```

```
}
sl=digitalRead(sensorL);
sm=digitalRead(sensorM);
sr=digitalRead(sensorR);
if ((sl==0&&sr==0&&sm==1)||(sl==1&&sr==1&&sm==1)||(sl==0&&sr==0&&sm==0))
forword();
else if ((sl==0&&sr==1&&sm==1)||(sl==0&&sr==1&&sm==0))
right();
else if ((sr==0&&sl==1&&sm==1)||(sr==0&&sl==1&&sm==0))
left();
else
forword();


 }









void forword()
{
digitalWrite(IN1, HIGH);
digitalWrite(IN2, LOW);
digitalWrite(IN3, HIGH);
```

```
digitalWrite(IN4, LOW);
analogWrite(speedL,160);
analogWrite(speedR,160);
}
void backword()
{
digitalWrite(IN1, LOW);
digitalWrite(IN2, HIGH);
digitalWrite(IN3, LOW);
digitalWrite(IN4, HIGH);
analogWrite(speedL,160);
analogWrite(speedR,160);
}
```