

```
#include<NewPing.h>

#include<Servo.h>

#define RIGHT A2

#define LEFT A3

#define TRIGGER_PIN A1

#define ECHO_PIN A0

#define MAX_DISTANCE 100
```

```
NewPing sonar(TRIGGER_PIN, ECHO_PIN, MAX_DISTANCE);
```

```
//Motor A
```

```
const int motorPin1 = 5;
```

```
const int motorPin2 = 6;
```

```
//Motor B
```

```
const int motorPin3 = 9;
```

```
const int motorPin4 = 10;
```

```
Servo myservo;
```

```
int pos =0;
```

```
void setup(){
```

```
pinMode(motorPin1, OUTPUT);
```

```
pinMode(motorPin2, OUTPUT);
```

```
pinMode(motorPin3, OUTPUT);
```

```
pinMode(motorPin4, OUTPUT);
```

```
Serial.begin(9600);
```

```
myservo.attach(11);
```

```

{
for(pos = 90; pos <= 180; pos += 1){
    myservo.write(pos);
    delay(15);
} for(pos = 180; pos >= 0; pos-= 1) {
    myservo.write(pos);
    delay(15);
}for(pos = 0; pos<=90; pos += 1) {
    myservo.write(pos);
    delay(15);
}
}

pinMode(RIGHT, INPUT);
pinMode(LEFT, INPUT);

}

void loop(){

    unsigned int distance = sonar.ping_cm();
    Serial.print("distance");
    Serial.println(distance);

    int Right_Value = digitalRead(RIGHT);
    int Left_Value = digitalRead(LEFT);

    Serial.print("RIGHT");
    Serial.println(Right_Value);

```

```

Serial.print("LEFT");
Serial.println(Left_Value);

if((Right_Value==0) && (distance>=5 && distance<=100)&&(Left_Value==0)){
//forward
analogWrite(motorPin3, 255);
analogWrite(motorPin4, 0);
analogWrite(motorPin1, 0);
analogWrite(motorPin2, 0);
}

else if((Right_Value==0) && (Left_Value==1)) {
//right forward
analogWrite(motorPin1, 255);
analogWrite(motorPin2, 0);
analogWrite(motorPin3, 255);
analogWrite(motorPin4, 0);
}

else if((Right_Value==1)&&(Left_Value==0)) {
//left forward .
analogWrite(motorPin1, 0);
analogWrite(motorPin2, 255);
analogWrite(motorPin3, 255);
analogWrite(motorPin4, 0);
}

else {
//And this code will stop motors
analogWrite(motorPin1, 0);
analogWrite(motorPin2, 0);

```

```
analogWrite(motorPin3, 0);
```

```
analogWrite(motorPin4, 0);
```

```
}
```

```
}
```