

```
const int trigPin = 12;
const int echoPin = 13;

// the first dc motor
int IN2 = 1;//BLUE
int IN1 = 0;//WHITE
// the second dc motor
int IN3 = 6;// BLUE
int IN4 = 5;// YELLOW

void setup()
{

// define the l298N output pins
  pinMode(IN2, OUTPUT);
  pinMode(IN1, OUTPUT);
  pinMode(IN3, OUTPUT);
  pinMode(IN4, OUTPUT);

}

void goForward()
{
digitalWrite(IN2,HIGH);// Forward
digitalWrite(IN1,LOW);// Forward
digitalWrite(IN3,HIGH);// Forward
```

```
digitalWrite(IN4,LOW); // Forward
```

```
}
```

```
void rotateRight(int duration)
```

```
{
```

```
digitalWrite(IN2,HIGH); // rotateRight
```

```
digitalWrite(IN1,LOW); // rotateRight
```

```
digitalWrite(IN3,LOW); // rotateRight
```

```
digitalWrite(IN4,HIGH); // rotateRight
```

```
delay(duration);
```

```
digitalWrite(IN2,LOW); // Stop
```

```
digitalWrite(IN1,LOW); // Stop
```

```
digitalWrite(IN3,LOW); // Stop
```

```
digitalWrite(IN4,LOW); // Stop
```

```
}
```

```
void rotateLeft(int duration)
```

```
{
```

```
digitalWrite(IN2,LOW); // rotateLeft
```

```
digitalWrite(IN1,LOW); // rotateLeft
```

```
digitalWrite(IN3,LOW); // avant-gauche
```

```
digitalWrite(IN4,HIGH); // avant-gauche
```

```
delay(duration);
```

```
digitalWrite(IN2,LOW);// Stop  
digitalWrite(IN1,LOW);// Stop  
digitalWrite(IN3,LOW);// Stop  
digitalWrite(IN4,LOW);// Stop
```

```
}
```

```
long sensor1()
```

```
{
```

```
long duration, mm;
```

```
pinMode(trigPin, OUTPUT);
```

```
digitalWrite(trigPin, LOW);
```

```
delayMicroseconds(2);
```

```
digitalWrite(trigPin, HIGH);
```

```
delayMicroseconds(10);
```

```
digitalWrite(trigPin, LOW);
```

```
pinMode(echoPin, INPUT);
```

```
duration = pulseIn(echoPin, HIGH);
```

```
mm = 10 * microsecondsToCentimeters(duration);
```

```
Serial.print(mm);
```

```
Serial.print("mm");
```

```
Serial.println();
```

```
delay(100);
```

```
return mm ;
```

```
}  
long microsecondsToCentimeters(long microseconds)  
{  
  return microseconds / 29 / 2;  
}  
void loop()  
{ long c1 ;  
  {  
    c1=sensor1();  
    goForward();  
    if(c1<500)  
    {rotateRight(1000);}  
  }  
}
```