```
//Init Moto
//This program is to control the movement of forward, backward,
//go right and go left according to the consign given.
//Red LED refers to movement of motor1
//Yellow LED refers to movement of motor2
const int active1 = 2;// to activate motor 1
const int active2 = 4;// to activate motor 2

const int motor1_a = 5;
const int motor1_b = 6;
const int motor2_a = 9;
const int motor2_b = 10;
int speed = 127;        //50% duty cycle,max=255
int time = 500;      //default 1000ms

char movement = 'F';//F:forward B:backward R:right L:left
//motor 1 will control 'forward' and 'backward'
//motor 2 will control 'right' and 'left'
int step = 2;// number of steps in this direction

void setup()
{
   pinMode(active1, OUTPUT);
   pinMode(active2, OUTPUT);
   pinMode(motor1_a, OUTPUT);
   pinMode(motor1_b, OUTPUT);
   pinMode(motor2_a, OUTPUT);
   pinMode(motor2_b, OUTPUT);

}

void loop()
{ if (step>0)
      {
        switch(movement)
    {
      case 'F':
            forward_motor1(time);
            step=step-1;
      break;
      case 'B':
            backward_motor1(time);
            step=step-1;
      break;
```

```
        case 'R':
              forward_motor2(time);
              step=step-1;
        break;
        case 'L':
              backward_motor2(time);
             step=step-1;
        break;
        default:
             break;
         }
      }
  else
      step=0;

}


void forward_motor1(int time)
{
digitalWrite(active1, HIGH);//activate motor1
analogWrite(motor1_a,speed);//PWM output
analogWrite(motor1_b,0);
delay(time);//wait for 'time' milliseconds
digitalWrite(active1, LOW);//disactivate motor1

}
void backward_motor1(int time)
{
  digitalWrite(active1, HIGH);
    analogWrite(motor1_b,speed);//PWM output
  analogWrite(motor1_a,0);
    delay(time);
    digitalWrite(active1, LOW);
}


void forward_motor2(int time)
{
digitalWrite(active2, HIGH);
analogWrite(motor2_a,speed);//PWM output
analogWrite(motor2_b,0);
delay(time);//wait for 'time' milliseconds
    digitalWrite(active2, LOW);
```

```
}

void backward_motor2(int time)
{
  digitalWrite(active2, HIGH);
    analogWrite(motor2_b,speed);//PWM output
  analogWrite(motor2_a,0);
    delay(time);
    digitalWrite(active2, LOW);
  }
```