

```
const int IN1=10;
const int IN2=9;
const int IN3=4;
const int IN4=5;
#define S0 A0
#define S1 A1
#define S2 A2
#define S3 A3
#define S4 A4
#define MAX
#define MIN
#define BLACK 0
const int led[5] ={S0,S1,S2,S3,S4};
int value[5];
```

```
void setup()
{
  Serial.begin(9600);
  pinMode(IN1, OUTPUT);
  pinMode(IN2, OUTPUT);
  pinMode(IN3, OUTPUT);
  pinMode(IN4, OUTPUT);
  for (int i=0;i<5;i++)
    pinMode(led[i],INPUT);
}
```

```
void xetien( int spd)
{
  analogWrite(IN1,spd);
  analogWrite(IN2,LOW);
  analogWrite(IN3,spd);
  analogWrite(IN4,LOW);
}
```

```
void xedung()
{
  analogWrite(IN1,LOW);
  analogWrite(IN2,LOW);
  analogWrite(IN3,LOW);
  analogWrite(IN4,LOW);
}
```

```
void re_traai(int spd)
{
  analogWrite(IN1,spd);
  analogWrite(IN2,LOW);
  analogWrite(IN3,LOW);
  analogWrite(IN4,LOW);
}
```

```
void re_phai(int spd)
{

```

```

    analogWrite(IN1,LOW);
    analogWrite(IN2,LOW);
    analogWrite(IN3,spd);
    analogWrite(IN4,LOW);
}

void SensorRead()
{
    for (int i=0;i<5;i++)
    {
        value[i]=digitalRead(led[i]);
        Serial.print(value[i]);
    }
    Serial.println();
}

void doline ()
{
    SensorRead();
    if (value[2] == BLACK)
    {
        Serial.println("ok");
        xetien(150);
    }
    else if (value[3] == BLACK || value[4] == BLACK)
    {
        re_tra(150);
    }
    else if (value[0] == BLACK || value[1] == BLACK)
    {
        re_phai(150);
    }
}

void loop ()
{
    doline();
}

```