```
 unsigned char pos=3;
const unsigned char path[]PROGMEM={0x01,0x02,0x03,0x04,0x14,0x24,0x34,0x44,
0x34,0x24,0x14,0x04,0x03,0x02,0x01,0x00};

void turnright(void);
void turnleft(void);
void turnaround(void);
void move_ab(unsigned char);
void move_ba(unsigned char);
void tracepath(unsigned char);
void goforw(void)
{
avoid_zun();
}


void turnright()
{
 eye_read();
 unsigned char r;

 r=(Reye & 0b00001110);
 while(r!=0x00)
 {
  eye_read();
  r=(Reye & 0b00001110);
  PORTC=xright;
  steer(pwmmaxspeed-180,pwmmaxspeed-180);
 }
  r=(Reye & 0b00000100);
while(r!=0x04)
 {
  eye_read();
  r=(Reye & 0b00000100);
  PORTC=xright;
  steer(pwmmaxspeed-180,pwmmaxspeed-180);
 }
  PORTC=brake;
}
void turnleft()
{
 eye_read();
 unsigned char r;

 r=(Reye & 0b00001110);
 while(r!=0x00)
 {
  eye_read();
  r=(Reye & 0b00001110);
  PORTC=xleft;
  steer(pwmmaxspeed-180,pwmmaxspeed-180);
 }
  r=(Reye & 0b00000100);
while(r!=0x04)
 {
  eye_read();
  r=(Reye & 0b00000100);
  PORTC=xleft;
  steer(pwmmaxspeed-180,pwmmaxspeed-180);
 }
 PORTC=brake;
```

```
}



void turnaround()
{
 turnleft();
 turnleft();
}

 void move_ab(uchar t)
 {
    // a -> next cell
    // b -> current cell
    if(pos==1 && t==0x10 )
    {
 //    forw(24,5);
    }
    else if(pos==1 && t==0x01 )
    {
     turnleft();
     pos=4;
    }
    else if(pos==2 && t==0x10 )
    {
     turnleft();
     pos=1;
    }
    else if(pos==2 && t==0x01 )
    {
     turnaround();
     pos=4;
    }
    else if(pos==3 && t==0x10 )
    {
     turnaround();
     pos=1;
    }
    else if(pos==3 && t==0x01 )
    {
     turnright();
     pos=4;
    }
    else if(pos==4 && t==0x10 )
    {
     turnright();
     pos=1;
    }
    else if(pos==4 && t==0x01 )
    {
    // forw(24,5);
    }


 }

void move_ba(uchar t)
 {
    // a -> next cell
    // b -> current cell
    if(pos==1 && t==0x10 )
```

```
    {
     turnaround();
     pos=3;
    }
    else if(pos==1 && t==0x01 )
    {
     turnright();
     pos=2;
    }
    else if(pos==2 && t==0x10 )
    {
     turnright();
     pos=3;
    }
    else if(pos==2 && t==0x01 )
    {
 //   forw(24,5);
    }
    else if(pos==3 && t==0x10 )
    {
//    forw(24,5);
     pos=3;
    }
    else if(pos==3 && t==0x01 )
    {
     turnleft();
     pos=2;
    }
    else if(pos==4 && t==0x10 )
    {
     turnleft();
     pos=3;
    }
    else if(pos==4 && t==0x01 )
    {
     turnaround();
     pos=2;
    }


}


void tracepath(uchar ptr)
{
  uchar a,b;

  if(ptr==0)
  {
   a=pgm_read_byte(&path[ptr]);//next
   b=0x00;//current
   if(a>b)
   move_ab(a-b);
   else
   move_ba(b-a);

  }
  else
  {
   a=pgm_read_byte(&path[ptr]);
   b=pgm_read_byte(&path[ptr-1]);
```

```
    if(a>b)
    move_ab(a-b);
    else
    move_ba(b-a);
   }

 }
```