```
#include<reg51.h>
#define msec 100
#define lcd_data_str_pin P2
#include<stdio.h>


sbit  gcA=P1^0;         // interrupt for A (green corridor)
sbit  gcB=P1^1;         // interrupt for B (green corridor)
sbit  gcC=P1^2;         // interrupt for C (green corridor)
sbit  gcD=P1^3;         // interrupt for D (green corridor)

sbit  SenA=P0^7;     // sensor in line A
sbit  SenB=P0^2;     // sensor in line B
sbit  SenC=P0^1;     // sensor in line C
sbit  SenD=P0^5;     // sensor in line D

void normal();

void main (void)
{
            while(1)
            {
                  normal();
            }
}

void delay(unsigned int m_sec)  //Time delay function
{
            int i,j ;
            for(i=0;i<m_sec;i++)
          for(j=0;j<500;j++);
}
```

```
void normal()
{
                P2=0x28;P3=0x11;  // A Green
                    delay(5000);
                    if(SenA == 0)
                    {delay(10000);}

                    while(gcA==1)
                  {
                    P2=0x28;P3=0x11;  // A Green
                       delay(5000);
                  }

                    P2=0x41;P3=0x11;  // A yellow
                  delay(2000);
                  P2=0x82;P3=0x11;   // B Green
                  delay(5000);
                  if(SenB == 0)
                    {delay(10000);}

                    while(gcB==1)
                    {
                         P2=0x82;P3=0x11;   // B Green
                    delay(5000);
                  }

                  P2=0x81;P3=0x11;   // B yellow
                  delay(2000);
```

```
                P2=0x88;P3=0x14;    // C Green
                delay(5000);
                if(SenC == 0)
                  {delay(10000);}

                  while(gcC==1)
                  {
                       P2=0x88;P3=0x14;    // C Green
                  delay(5000);
                  }


                P2=0x88;P3=0x12;   // C yellow
                delay(2000);
                P2=0x88;P3=0x41;    // D Green
                delay(5000);
                if(SenD == 0)
                  {delay(10000);}

                  while(gcD == 1)
                  {
                       P2=0x88;P3=0x41;    // D Green
                  delay(5000);
                  }

                P2=0x88;P3=0x21;     // D yellow
                delay(2000);

}
```