#include<reg51.h>

//signal 1

sbit tl1r = P2^0; // red

sbit tl1o = P2^1; // orange

sbit tl1g = P2^2; // green

//signal 2

sbit tl2r = P2^3; // red

sbit tl2o = P2^4; // orange

sbit tl2g = P2^5; // green

//signal 3

sbit tl3r = P3^0; // red

sbit tl3o = P3^1; // orange

sbit tl3g = P3^2; // green

void delay(int t);

void trafficlight(void);

void main() // main program

{

P2=0x00; // turned off the lights

P3=0x00; // turned off the lights

while(1)

{

trafficlight();

}

}

void delay(unsigned long int t) // delay routine

{

while(t>0)

{

unsigned long int i;

for(i=1;i<10\*1275;i++);

t--;

}

}

void trafficlight(void) // traffic light system program

{

P2= 0x11; // traffic signal control data

P3= 0x04;

/\*

tl1r=1; // signal 1

tl1o=0;

tl1g=0;

tl2r=0; // signal 2

tl2o=1;

tl2g=0;

tl3r=0; // signal 3

tl3o=0;

tl3g=1;

\*/

delay(100); // delay

P2= 0x0c; // traffic signal control data

P3= 0x02;

/\*

tl1r=0; // signal 1

tl1o=0;

tl1g=1;

tl2r=1; // signal 2

tl2o=0;

tl2g=0;

tl3r=0; // signal 3

tl3o=1;

tl3g=0;

\*/

delay(100); // delay

P2= 0x22; // traffic signal control data

P3= 0x01;

/\*

tl1r=0; // signal 1

tl1o=1;

tl1g=0;

tl2r=0; // signal 2

tl2o=0;

tl2g=1;

tl3r=1; // signal 3

tl3o=0;

tl3g=0;

\*/

delay(100); // delay

}