/\*\*\*\*\*晶振频率12MHZ\*\*\*\*\*/

#include <reg51.h>

#define uchar unsigned char

#define uint unsigned int

uchar code table1[]=

//\*0\* \*1\* \*2\* \*3\* //

{0x3f,0x006,0x5b,0x4f,

//\*4\* \*5\* \*6\* \*7\*//

0x66,0x6d,0x7d,0x07,

//\*8\* \*9\* \*-\* \*O\*

0x7f,0x6f,0x40,0x3f,

//\*N\* \*F\*//

0x37,0x71};

//数码管位选

uchar code table2[]=

{0x00,0x04,0x02,0x06,

0x01,0x05,0x03,0x07};

int umiao,shi,fen,miao,shi1,fen1;

uint k1num,flag;

sbit k1=P1^0;

sbit k2=P1^1;

sbit k3=P1^2;

sbit buzz=P3^7;

/\*\*\*\*\*\*延时函数\*\*\*\*\*\*/

void delay(uint t)

{

uint a;

for(;t>0;t--)

for(a=110;a>0;a--);

}

/\*\*\*\*\*蜂鸣器函数\*\*\*\*\*/

void buzzer()

{

uint b,c;

for(c=50;c>0;c--)

{

buzz=0;

b=20;

while(b--);

buzz=1;

b=20;

P0=table1[fen%10];

delay(2);

P0=0x00;

delay(2);

P2=table2[1];

P0=table1[fen/10];

delay(2);

P0=0x00;

delay(2);

P2=table2[0];

P0=table1[miao%10];

delay(2);

P0=0x00;

delay(2);

P2=table2[4];

P0=table1[miao/10];

delay(2);

P0=0x00;

delay(2);

}

if(k1num==3)

{

P2=table2[3];

P0=table1[shi1%10];

delay(2);

P0=0x00;

delay(2);

P2=table2[7];

P0=table1[shi1/10];

delay(2);

P0=0x00;

delay(2);

}

if(k1num==4)

{

P2=table2[6];

P0=table1[fen1%10];

delay(2);

P0=0x00;

delay(2);

P2=table2[1];

P0=table1[fen1/10];

delay(2);

P0=0x00;

delay(2);

}

if(k1num==5)

{

if(flag!=0)

{

P2=table2[0];

P0=table1[12];

delay(2);

P0=0x00;

delay(2);

P2=table2[4];

P0=table1[11];

delay(2);

P0=0x00;

delay(2);

}

if(flag==0)

{

P2=table2[0];

P0=table1[13];

delay(2);

P0=0x00;

delay(2);

P2=table2[4];

P0=table1[11];

delay(2);

P0=0x00;

delay(2);

}

}

}

/\*\*\*\*\*\*\*\*按键函数\*\*\*\*\*\*\*\*/

void key()

{

if(k1==0)

{

delay(15);

if(k1==0)

{

k1num++;

while(!k1);

if(k1num==6)

{

k1num=0;

}

}

}

if(k1num==1)

{

if(k2==0)

{

delay(15);

if(k2==0)

{

shi++;

while(!k2);

if(shi==24)

{

shi=0;

}

}

}

if(k3==0)

{

delay(15);

if(k3==0)

{

shi--;

while(!k3);

if(shi<0)

{

shi=23;

}

}

}

}

if(k1num==2)

{

if(k2==0)

{

delay(15);

if(k2==0)

{

fen++;

miao=0;

while(!k2);

if(fen==60)

{

fen=0;

}

}

}

if(k3==0)

{

delay(15);

if(k3==0)

{

fen--;

miao=0;

while(!k3);

if(fen<0)

{

fen=59;

}

}

}

}

if(k1num==3)

{

if(k2==0)

{

delay(15);

if(k2==0)

{

shi1++;

while(!k2);

if(shi1==24)

{

shi1=0;

}

}

}

if(k3==0)

{

delay(15);

if(k3==0)

{

shi1--;

while(!k3);

if(shi1<0)

{

shi1=23;

}

}

}

}

if(k1num==4)

{

if(k2==0)

{

delay(15);

if(k2==0)

{

fen1++;

while(!k2);

if(fen1==60)

{

fen1=0;

}

}

}

if(k3==0)

{

delay(15);

if(k3==0)

{

fen1--;

while(!k3);

if(fen1<0)

{

fen1=59;

}

}

}

}

if(k1num==5)

{

if(k2==0)

{

delay(15);

if(k2==0)

{

flag=~flag;

while(!k2);

}

}

}

}

/\*\*shi,fen,miao显示函数\*\*/

void time\_display()

{

P2=table2[0];

P0=table1[miao%10];

delay(2);

P0=0x00;

delay(2);

P2=table2[4];

P0=table1[miao/10];

delay(2);

P0=0x00;

delay(2);

P2=table2[2];

P0=table1[10];

delay(2);

P0=0x00;

delay(2);

P2=table2[6];

P0=table1[fen%10];

delay(2);

P0=0x00;

delay(2);

P2=table2[1];

P0=table1[fen/10];

delay(2);

P0=0x00;

delay(2);

P2=table2[5];

P0=table1[10];

delay(2);

P0=0x00;

delay(2);

P2=table2[3];

P0=table1[shi%10];

delay(2);

P0=0x00;

delay(2);

P2=table2[7];

P0=table1[shi/10];

delay(2);

P0=0x00;

delay(2);

}

/\*\*\*\*\*\*\*主函数\*\*\*\*\*\*\*/

void main()

{

Timer3\_Init();

flag=0; //闹钟默认关

while(1)

{

key();

set();

if(k1num==0)

{

time\_display();

}

}

}

/\*\*\*\*T0的中断函数\*\*\*\*/

void int0() interrupt 1

{

TH0=(65536-50000)/256;

TL0=(65536-50000)%256;

umiao++;

if(umiao==20)

{

umiao=0;

miao++;

if(miao==60)

{

miao=0;

fen++;

if(fen==60)

{

fen=0;

shi++;

buzzer();

//整点提示，蜂鸣器发音。

if(shi==24)

{

shi=0;

}

}

}

}

//闹钟时间到，蜂鸣器发音一分钟//

if(shi==shi1&fen==fen1&flag!=0&fen<fen1+1)

{

buzzer();

}

}