



```

1 #include<reg51.h>
2 typedef unsigned char uchar;
3 typedef unsigned int uint;
4 sbit WE1 = P2^7;
5
6 uchar code KEY_TABLE[] =
7 { 0xEE, 0xDE, 0xBE, 0x7E, 0xED, 0xDD, 0xBD, 0x7D, /*扫描矩阵键盘1—16的个键值*/
8   0xEB, 0xDB, 0xBB, 0x7B, 0xEB, 0xD7, 0xB7, 0x77
9 };
10 uchar code TABLE[] =
11 { 0x3F, 0x06, 0x5B, 0x4F, 0x66, 0x6D, 0x7D, 0x07, /*数码管0—F的值*/
12   0x7F, 0x6F, 0x77, 0x7C, 0x39, 0x5E, 0x79, 0x71,
13 };
14
15 void delay(uint ms);
16
17 void main()
18 {
19     uchar temp, key, key_num;
20     WE1 = 1;
21     P2 = 0x3F;
22     WE1 = 0;
23     while(1)
24     {
25         P1 = 0xF0; //行检测
26         if (P1 != 0xF0) //按键是否被按下
27         {
28             delay(10); //消抖
29             if (P1 != 0xF0) //再次检测是否按下
30             {
31                 temp = P1; //将行检测的值先存放在temp变量中
32                 P1 = 0xF0; //列检测
33                 key = temp | P1; //行列检测的值相或，得到按键的位置
34                 for (key_num = 0; key_num < 16; ++key_num) //循环16位键值
35                     if (key == KEY_TABLE[key_num]) //通过KEY_TABLE数组判断哪个键被按下
36                         break;
37                 P2 = TABLE[key_num]; //显示数码管值
38             }
39         }
40     }
41 }
42
43 void delay(uint ms)
44 {
45     unsigned int i = 0, j = 0;
46     for(i = 0; i < ms; i++)
47         for(j = 0; j < 120; j++);
48 }

```

