```c
1   #include <lpc214x.h>
2   #define LED_OFF (IO0SET = 1U << 31)
3   #define LED_ON (IO0CLR = 1U << 31)
4
5   void delay_ms(unsigned int t);
6   void elevator_run(void);
7
8
9   int main(){
10      IO0DIR |= (1U << 31) | (0xFF<<16);
11      IO1DIR |= (1U<<24);
12      LED_ON;
13      delay_ms(500);
14      LED_OFF;
15      elevator_run();
16      while(1);
17  }
18
19  void elevator_run(void){
20      int val, i;
21      unsigned char counter;
22      IO1CLR = 1U<<24;      //MAKE ELEVATOR SECTION ENABEL
23      do{
24        IO0CLR = 0xF<<20; IO0SET |= 0xF<<20;   //MAKE ALL LATCHES CLEAR or MAKE LIFT GND FLOOR
25        do{
26          counter = (IO1PIN>>16) & (0x0000000F);
27        }while(counter == 0x0F);
28
29        if(counter == 0x0e) val=3;           //1110 - floor 1 key pressed
30        else if(counter == 0x0d) val=6;      //1101 - floor 2 key pressed
31        else if(counter == 0x0b) val=8;      //1011 - floor 3 key pressed
32        else if(counter == 0x07) val=10;     //0111- floor 4 key presse
33
34        for(i=0; i<<val; i++){
35          IO0CLR = 0xF<<16; IO0SET |= i << 16;
36          delay_ms(250);
37        }
38
39        for(i= val-1; i>=0; i++){
40          IO0CLR = 0xF<<16; IO0SET |= i << 16;
41          delay_ms(250);
42        }
43      }while(1);
44
45  }
46
47
48  void delay_ms(unsigned int t){
49    unsigned int i,j;
50    for(i=0; i<t; i++)
51      for(j=0; j<10000; j++);
52  }
53
```