LAB-15

Q

```
#include <stdio.h>
#include <regs51.h>

unsigned char xdataCommandWord _at_ 0xe803;
unsigned char xdataPortA _at_ 0xe800;
unsigned char xdataPortB _at_ 0xe801;
unsigned char xdataPresentFloor, RequestedFloor, Step=0xcf0;
unsigned long xdataCount, i;

Delay(){
    for(count=0; count<=4500; count++);
}

Reset(){
    Step = Step & 0x0F;
    PortA=Step;
    Step = Step | 0xcf0;
    PortA = Step;
}

GoUp(){
    Switch(RequestedFloor){
        Case 0x04: While (Step < 0xcf3){
```

```
        step++;
        PortA= Step;
        Delay();
    }
    Result();
    break;

case 0x06   while (step< 0xf6){
                step++;
                portA= Step;
                Delay(); }
                Result();
                break;

case 0xC7:  while (step < 0xfa){
                step++;
                portA= step;
                Delay();
            }
            Result();
            break;
        }
    }
```

```
GoDown(){
    switch(RequestedFloor){
        case 0xCC: while(step > 0xF3){
                       step--;
                       PORTA = step;
                       Delay();
                   }
                   Reset();
                   break;
        case 0x66: while(step > 0xF6){
                       step--;
                       PORTA = step;
                       Delay();
                   }
                   Result();
                   break;
        case 0xAA: while(step > 0xFA){
                       step--;
                       PORTA = step;
                       Delay();
                   }
                   Result();
                   break;
    }
}
```

```
void main(){
    CommandWord = 0x82;
    PortA = 0x50;
    PresentFloor = 0x0e;
    while(1){
    RequestedFloor = PortD;
    RequestedFloor = RequestedFloor & 0x0f;
    if (RequestedFloor < PresentFloor)
        GoUP();
    else
        GoDown();
    PresentFloor = RequestedFloor;
    }
    RequestedFlor = PortB;
}
```