

## Elevator program

```
#include <stdio.h>
#include <reg51.h>
unsigned char xdata CommandWord at 0xe803;
unsigned char xdata PortA at 0xe800;
unsigned char xdata PortB at 0xe801;
unsigned char xdata
PresentFloor, RequestedFloor, Step = 0xf0;
unsigned long xdata Count, i;
```

## PRACTICAL RECORD

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

```
Reset() {
```

```
    Step = Step & 0x0f;
```

```
    Port A = Step;
```

```
    Step = Step | 0x0f;
```

```
    Port A = Step; }
```

```
GoUp() {
```

```
    Switch (Requested Floor) {
```

```
        case 0x0d: while (Step < 0xf3) {
```

```
            Step++;
```

```
            Port A = Step;
```

```
            Delay(); }
```

```
        Reset();
```

```
        break;
```

```
        case 0x0b: while (Step < 0xf6) {
```

```
            Step++;
```

```
            Port A = Step;
```

```
            Delay(); }
```

```
        Reset();
```

```
        Break;
```

```
        case 0x07: while (Step < 0xfa)
```

```
            Step++;
```

```
            Port A = Step;
```

```
            Delay(); }
```

```
        Reset();
```

```
        break; } }
```

```

goDown() {
    switch (RequestedFloor) {
        case 0xd: while (step > 0xf3) {
            Step--;
            PortA = Step;
            Delay();
            Reset();
            break;
        case 0xb: while (step > 0xf6) {
            Step--;
            PortA = Step;
            Delay();
            Reset();
            break;
        case 0xe: while (step > 0xf0) {
            Step--;
            PortA = Step;
            Delay();
            Reset();
            break; }
    }
    void main() {
        CommandWord = 0x82;
        PortA = 0xf0;
        PresentFloor = 0xe;
        while (1) {
            RequestedFloor = PortB;
            RequestedFloor = RequestedFloor & 0xf;
            if (RequestedFloor != 0xf && RequestedFloor != PresentFloor)
                GoUp();
        }
    }
}

```

DATE :

DATE

PRACTICAL RECORD

else

GoDown();

CurrentFloor = RequestedFloor;

{

RequestedFloor = PortB; }