

LAB-15

#include &lt;stdio.h&gt;

#include &lt;reg51.h&gt;

unsigned char xdataCommandWord = 0x03;

unsigned char xdataPortA = 0x00;

unsigned char xdataPortB = 0x01;

unsigned char xdataPresentFloor, Requestd Floor, Step = 0x00;

unsigned long xdataCount, i;

Delay() {

for(count = 0; count &lt;= 4500; count++);

}

Reset() {

Step = Step &amp; 0x0F;

PortA = Step;

Step = Step | 0x40;

PortA = Step;

}

Group() {

Switch (Requested Floor) {

case 0x01:

while (Step &lt; 0x03) {



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

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

```
case 0x07: while (step < 0x07) {  
    step++;  
    portA = step;  
    Delay();  
}  
Result();  
break;  
}  
}
```



GoDown() {

switch (RequestedFloor) {

case 0x0d: while (step > 0xf3) {

step--;

PortA = step;

Delay();

}

Reset();

break;

case 0x0b: while (step > 0xf6) {

step--;

PortA = step;

Delay();

}

Reset();

break;

case 0x0e: while (step > 0xf0) {

step--;

PortA = step;

Delay();

}

Reset();

break;

}

}

```
void main() {
```

```
    CommandWord = 0x82;
```

```
    Port A = 0xf0;
```

```
    PresentFloor = 0x0e;
```

```
    while (1) {
```

```
        RequestedFloor = Port P;
```

```
        RequestedFloor = RequestedFloor & 0x0f;
```

```
        if (RequestedFloor < PresentFloor)
```

```
            GoUpPC();
```

```
        else
```

```
            GoDown();
```

```
        PresentFloor = RequestedFloor;
```

```
    }
```

```
    RequestedFloor = Port B;
```

```
}
```