→ program to demo the elevator interface.

```
#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 count, i;
delay() {
for (count=0; count<=4500; count++);
}
Reset() {
step = step & 0x0f;
portA = step;
step = step | 0xf0;
portA = step;
}
GoUp() {
switch (requested floors) {

case 0x0d: while (step<0xf3) {
            step++;
            portA = step;
            delay();
          }
```

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```
Reset();
break;

case 0x0b: while (step < 0xf6) {
            step++;
            portA = step;
            Delay();
           }
           Reset();
           break;

case 0x07: while (step < 0xf9) {
            step++;
            portA = step;
            Delay();
           }
           Reset();
           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;
portA = 0xf0;
presentfloor = 0x0e;
while(1){
RequestedFloor = PortB;
RequestedFloor = RequestedFloor & 0x0f;
if(RequestedFloor != 0x0f && Requested
floor != presentfloor){
if(requestedfloor < presentfloor)
goup();
else
godown();
presentfloor = RequestedFloor;
}
RequestedFloor = PortB;
}
```