Program to demo the elevator interface

```
#include <stdio.h>
#include <reg51.h>
unsigned char xdata command word at 0xe803;
unsigned char xdata Port A at 0xe800;
unsigned char xdata Port B at 0xe801;
unsigned char xdata presentation, Requested floor, step, ch;
unsigned long xdata Count;

Relay ()
{
for (count = 0; count <= 6500; Count++)
  return 0;
}
Reset ()
{
  Step = step & 0xcf;
  Port A = step;
  Step = Step | 0x10;
  Port A = Step;
  return 0;
}
Count ()
{
Switch (Requested Floor)
  {
case 0xcd: while (Step <0x7f)
             {
               Steep ++;
```

```
        Port A = Step;
Delay ();
}
Reset ();
break;
Case 0x06 : while (Step < 0x06)
            {
              Step ++;
              Port A = Step;
              Delay ();
              }
              Reset ();
              break;
Case 0x07 : while (Step < 0x07)
            {
              Step ++
              Port A = Step;
              Delay ();
              }
              Reset ();
              break;
}
return 0;
}
GoDown()
{
Switch (Requested Floor)
{
 Case 0x00 : while (Step > 0x03
  Step --;
  Port A = Step;
  Delay ();
```

```
}
Reset();
break;

Case 0x0b : while (Step > 0x0f)
            {
              Step--;
              PortA = Step;
              Delay();
            }
            Reset();
            break;

Case 0x0e : while (Step > 0x0f)
            {
              Step--;
              PortA = Step;
              Delay();
            }
            Reset();
            break;
}
return 0;
}
void main()
{
CommandWord = 0x82;
PortA = 0x0f;
Present Floor = 0x0e;
While(1) {
Requested Floor = PortB;
Requested Floor = Requested Floor & 0x0f;
```

```
if (Requested floor != 0x0f && Requested floor != Present Floor){
  if (Requested Floor > Present Floor)
      GroUp();
  else
    GroDown();
  Present Floor = Requested Floor;
}
Requested Floor = Port B;
}
}
```