lab15

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Program to demo the
Elevator interface

```
#include <stdio.h>
#include <reg51.h>
unsigned char xdata Command - at- 0x0803;
unsigned char xdata Port0 - at- 0x0800;
Unsigned char xdata Present Floor, Requested Floor,
    Step = 0xF0;
unsigned long xdata Count, i;
Delay()
{
    for(count =0; count <=4500; count ++);
}

Rest()
{
    Step = Step & 0x0F;
    PortA = Step;
    Step = Step | 0xF0;
    PortA = Step;
}
```

```c
Group CS
{  switch (Requested Flow)
   {  case 0x0d : while (step < 0xF3)
                  {  step ++;
                     Port D = step;
                     Delay ();
                  }

                  Reset ();
                  break;
      case 0x0b : while (step < 0xF6)
                  {  step ++;
                     Port D = step;
                     Delay ();
                  }

                  Reset ();
                  break;
      case 0x07 : while (step < 0xF9)
                  {  step ++;
                     Port A = step;
                     Delay ();
                  }

                  Reset ();
                  break;
```

```
    }
  }

GoDown ()
{   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 0x0e ; while (step > 0xf0)
              {   step --;
                  Port A = step.
                  Delay ();
                  Reset ();
                  break;
}
```

```
}
Void main ()
{   CommandWord = 0x82;
    Port A = 0x P0;
    Preset Floor = 0xD0;
    while (1) {
    Requested Floor = Port B;
    Requested Floor = Requested Floor & 0x0F;
    if ( Requested Floor != 0x0F && Requested Floor !
                          = Preset Floor )
       if ( Requested Floor < Preset Floor )
              GoUp ();
       else
              GoDown ();
       Preset Floor = Requested Floor;
    }

    Requested Floor = Port B;
    }
```