

USN: _____
 NAME:- TASMIYA FATHIMA

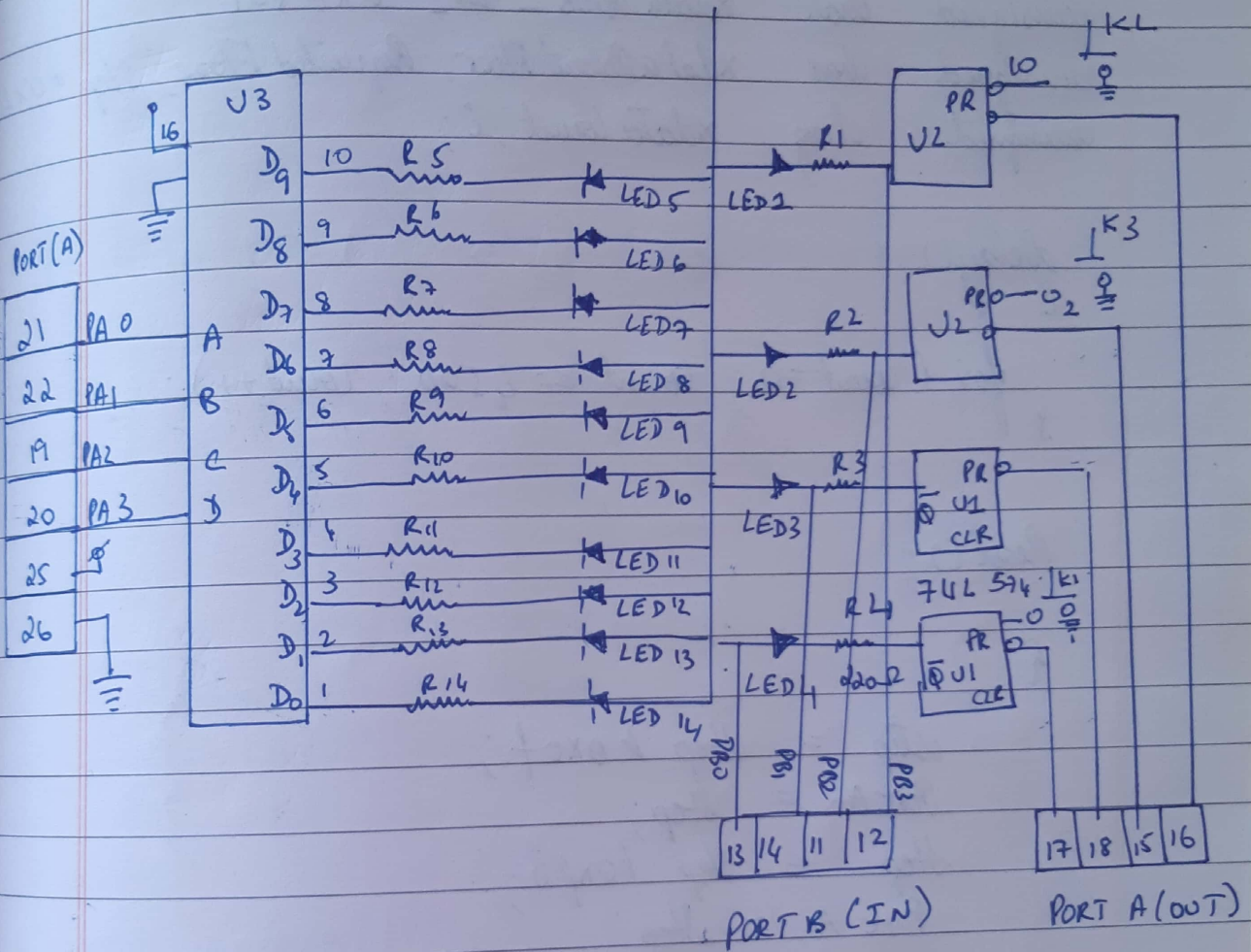
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COMPASS

Date: _____

Program-5

Program to demo the elevator interface



```
#include <stdio.h>
#include <reg51.h>
```

```
unsigned char xdata CommandWord _at_ 0xe83;
unsigned char xdata PortA _at_ 0xe80;
unsigned char xdata PortB _at_ 0xe81;
unsigned char xdata CurrentFloor, RequestedFloor, Step = 0xf0;
unsigned long xdata Count, i;
```

```
Delay()
{
```

```
    for (Count = 0; Count <= 4500; Count++);
}
```

```
Reset()
{
```

```
    Step = Step & 0x0f;
    PortA = Step;
    Step = Step | 0xf0;
    PortA = Step;
}
```

```
Upollp()
{
```

```
    switch (RequestedFloor)
    {
```

```
        case 0x0d: while (Step < 0xf3)
            {
                Step++;
                PortA = Step;
                Delay();
            }
        Reset();
        break;
    }
```



```
case 0x06: while (Step < 0xf6)
{
```

```
    Step++;
    PortA = Step;
    Delay();
}
Reset();
break;
```

```
case 0x07: while (Step < 0xf9)
{
```

```
    Step++;
    PortA = Step;
    Delay();
}
Reset();
break;
```

```
}
```

```
}
```

```
updown()
{
```

```
    switch (RequestedFloor)
    {
```

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

```
            Step--;
            PortA = 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 = 0xf0;
    PresentFloor = 0x0e;
    while (1)
    {

```

```

        {

```

```

            RequestedFloor = Port B;

```

```

            RequestedFloor = RequestedFloor & 0x0f;

```

```

            if (RequestedFloor != 0x0f || RequestedFloor != PresentFloor)
            {

```

```

                {

```


if (RequestedFloor < PresentFloor)
 Up();

else

 Down();

PresentFloor = RequestedFloor;

}

RequestedFloor = PortB;

}