

8051

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IBMIQCS111

## Lab program 13

Display messages FIRE and HELP alternatively with flickering effects on a 7-segment display interface for a suitable period of time. Ensure a flashing rate that makes it easy to read both the messages.

#include &lt;stdio.h&gt;

#include &lt;reg51.h&gt;

char xdataCommW at 0xe803;

char xdata portB at 0xe801;

char xdata portC at 0xe802;

```
char port[20] = {0x8c, 0xf9, 0xde, 0x86, 0xff, 0xff,
                 0xff, 0xff, 0x89, 0x86, 0xc7, 0x8c, i};
```

delay()

{

long u;

for (u=0; u&lt;8000; u++);

{

void main()

{

int a, b, f, m;

unsigned char k;

CommW = 0x80;

```
do
```

```
{
```

```
    i = 0
```

```
    for (d = 0; d < 3; d++)
```

```
    {
```

```
        for (b = 0; b < 4; b++)
```

```
        {
```

```
            k = port[i++];
```

```
            for (j = 0; j < 8; j++)
```

```
            {
```

```
                m = k;
```

```
                k = k & 0x80;
```

```
            }
```

```
            if (k == 00)
```

```
                portB = 0x00;
```

```
            else
```

```
                portC = 0x01;    } portB = 0x01;
```

```
                portC = 0x00;
```

```
                k = m;
```

```
                k <<= 1;
```

```
            }
```

```
        }
```

```
        delay();
```

```
    }
```

```
}
```

```
while(1);
```

```
}
```