

Elevator Interface

#include <stdio.h>

#include <reg51.h>

unsigned char xdata Command word at 0xe803;

unsigned char xdata-pat at 0xe800;

unsigned char xdata PortB at 0xe801;

unsigned char xdata present floor, Request floor, step = 0xf0;

unsigned long xdata count, i;

Delay()

{

for (count = 0 ; count <= 4500 ; count++);

}

Reset()

{

step = step 0xf0;

Port A = step;

}

No VPL() {

switch (Requested Floor) {

case 0x0d: while (step < 0xf0) {

step++;

Port A = step;

Delay(); }

Reset();

break;

```
case 0x06: while (step < 0xf6)
```

```
{
```

```
    step++;
```

```
    Port A = step;
```

```
    Delay();
```

```
}
```

```
Reset();
```

```
break;
```

```
case 0x07: while (step < 0xf9)
```

```
{
```

```
    step++;
```

```
    Port A = step;
```

```
    Delay();
```

```
}
```

```
Reset();
```

```
break;
```

```
}
```

```
Go down() {
```

```
    switch (Requested Floor) {
```

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

```
    step--;
```

```
    Port A = step;
```

```
    Delay();
```

```
    break;
```



```
case 0x0b : while (step > 0xf6)
```

```
{ step-;
```

```
PortA = step;
```

```
Delay();
```

```
}
```

```
Reset();
```

```
break;
```

```
case 0x02 : while (step > 0xf0) {
```

```
step-;
```

```
PortA = step;
```

```
Delay(); }
```

```
Reset();
```

```
break;
```

```
}
```

```
void main() {
```

```
Command word = 0x82;
```

```
PortA = 0xf0;
```

```
Present Floor = Port B;
```

```
Requested Floor = Requested Floor & 0xf;
```

```
if (Requested Floor != 0xf && Present Floor != Present Floor) {
```

```
if (Requested Floor < Present Floor)
```

```
no UP();
```

```
else no Down();
```

```
Present Floor = Requested Floor;
```

```
} Requested Floor = Port B;
```

```
}
```

Fantastic