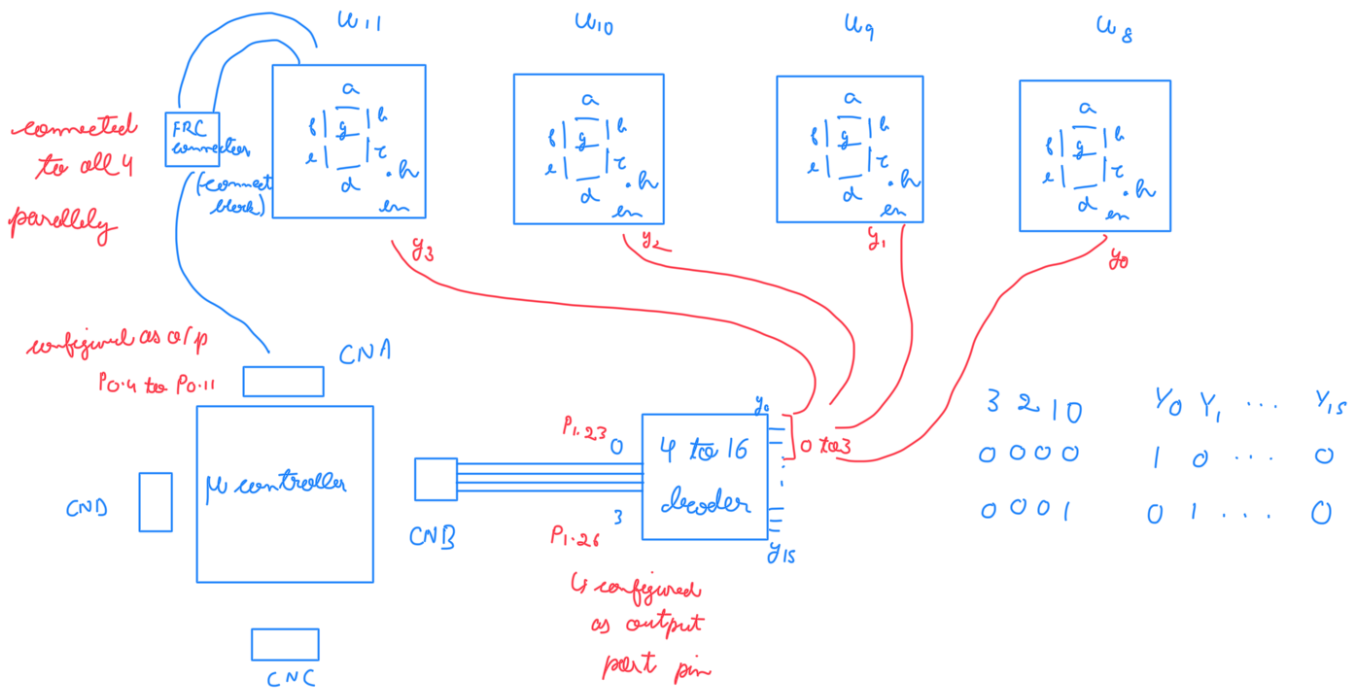


# Seven segment Display (Continued)

19/02/25



To configure the two parts, two statements are needed.

LPC - GPIO0 → FIODIR | = 0X 00000FF0 // or 0XFF << 4 or 0XFF0 : P0.4 to P0.11  
 LPC - GPIO1 → FIODIR | = 0X F << 23 // or 0X 07800000 : P1.23 to P1.26

0000 0000 0000 0000 0000 0000 0000 1111  
 1111  
 7 8  
 X07800000

Q WAP to display u11 u10 u9 u8  
 1 2 3 4

Sol: 1: 0X06 , 2: 0X5B , 3: 0X4F , 4: 0X66

One option : [ 0X66 , 0X4F , 0X5B , 0X06 ] : values array / lookup table  
 [ 4 , 3 , 2 , 1 ] : display array

Use P<sub>1.23</sub> to P<sub>1.26</sub> to use as enable inputs for the display.

```
#include <LPCXX.h>
```

```
unsigned int dig-count = 0x00;
```

```
unsigned char array-dec[10] = {0x3F, 0x06, 0x5B, 0x4F, 0x66, 0x6D, 0x7D, 0x07,  
0x7F, 0x6F};
```

```
unsigned int dig-value[4] = {4, 3, 2, 1}
```

```
unsigned int dig-select[4] = {0<<23, 1<<23, 2<<23, 3<<23}
```

```
void display(void) {
```

```
    LPC-GPIO1 → FIODIR = dig-select[dig-count];
```

```
    LPC-GPIO0 → FIODIR = array-dec[dig-value[dig-count]]<<4;
```

```
}
```

```
void delay(void) {
```

```
    unsigned int i;
```

```
    for (i=0; i<10000; i++);
```

```
}
```

```
int main(void) {
```

```
    SystemInit();
```

```
    SystemCoreClockUpdate();
```

```
    LPC-GPIO0 → FIODIR |= 0x0000FF0;
```

```
    LPC-GPIO1 → FIODIR |= 0xF << 23;
```

```
    while(1) {
```

```
        delay();
```

```
        display();
```

```
        dig-count += 1;
```

```
        if (dig-count == 0x04)
```

```
            dig-count = 0x00;
```

```
    } //end of while
```

```
} //end of main
```

Q WAP to count from 0 to 9 then back to 0 in one of the SSD. <sup>seven segment display</sup> HW