

To Interface LED bank with 8051 microcontroller with 00 and FF pattern,

use timer for providing delay of 20ms between ON-OFF

```
#include <reg51.h> // Include 8051 specific header file
```

```
// Function to generate a delay of 20ms
```

```
void delay() {  
    unsigned int i, j;  
    for (i = 0; i < 400; i++) { // Adjust this loop count for a  
20ms delay for 40ms delay 100,200  
        for (j = 0; j < 1000; j++);  
    }  
}
```

```
void main() {  
    unsigned char pattern;  
  
    while (1) { //infinite loop  
        // Display the 00 pattern  
        pattern = 0x00; // All the bit are 00000000 the led  
is off  
        P0 = pattern; // Output the pattern to Port 0  
        delay(); // Delay for 20ms  
  
        // Display the FF pattern  
        pattern = 0xFF; //all the bits are 11111111 the led is  
on  
        P0 = pattern; // Output the pattern to Port 0  
        delay(); // Delay for 20ms  
    }  
}  
0x55=01010101  
0xAA=10101010
```