

```

1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <unistd.h>
4  #include <fcntl.h>
5
6  #include <sys/types.h>
7  #include <sys/ioctl.h>
8  #include <sys/stat.h>
9
10 #define NOFILL  4
11 #define BLINK    8
12
13 int main(void)
14 {
15     int dev, data, rdata;
16
17     dev = open("/dev/hex", O_RDWR);
18     if (dev < 0) {
19         fprintf(stderr, "cannot open LED device\n");
20         return 1;
21     }
22     // write
23     printf("Input HEX7 data (hex) : ");
24     scanf("%x", &data);
25     ioctl(dev, 0, NULL);
26     write(dev, &data, 4);
27     // read
28     read(dev, &rdata, 4);
29     printf("read data = %x\n", rdata);
30
31     // write - BLINK
32     printf("Input HEX7 data (hex) for BLINK : ");
33     scanf("%x", &data);
34     ioctl(dev, BLINK, NULL);
35     write(dev, &data, 4);
36
37     // write - NOFILL
38     printf("Input HEX7 data (hex) for NOFILL : ");
39     scanf("%x", &data);
40     ioctl(dev, NOFILL, NULL);
41     write(dev, &data, 4);
42
43     // write - NOFILL, BLINK
44     printf("Input HEX7 data (hex) for NOFILL, BLINK : ");
45     scanf("%x", &data);
46     ioctl(dev, NOFILL | BLINK, NULL);
47     write(dev, &data, 4);
48
49     close(dev);
50
51     return 0;
52 }
53

```