

Multitasking

```
#include "includes.h"
```

```
//#include "edutech.h"
```

```
#include "uart.h"
```

```
#include "lcd.h"
```

```
OS_STK Task1Stack[100];
```

```
void Task1(void *pdata);
```

```
OS_STK Task2Stack[100];
```

```
void Task2(void *pdata);
```

```
OS_STK Task3Stack[100];
```

```
void Task3(void *pdata);
```

```
/* Main Program */
```

```
int main (void)
```

```
{
```

```
timer_init();
```

```
OSInit();
```

```
OSTaskCreate(Task1, (void *)0, &Task1Stack[99], 1);
```

```
OSTaskCreate(Task2, (void *)0, &Task2Stack[99], 2);
```

```
OSTaskCreate(Task3, (void *)0, &Task3Stack[99], 3);
```

```
OSStart();
```

```
//return 0;
```

```
}
```

```
/* Task Definition */
```

```

/**
 * Task1 to Print 0 to 9 on LCD line1
 */

void Task1(void *pdata)
{
    int i=0;

    Lcd_Init(); // Initialize LCD in 8bit mode

    Lcd_Cmd(0x80); // LCD Line1 cmd

    Lcd_String("numbers");

    while(1)
    {

        Lcd_Cmd(0x88);

        Lcd_Data(0x30 + i++);

        if(i==10) i=0;

        // LCD Line1 cmd

        OSTimeDlyHMSM(0, 0, 1, 0);

    }
}

/**
 * Task2 to Print A to Z on LCD line2 */

void Task2(void *pdata)
{
    int i=0;

```

```
Lcd_Cmd(0xC0); // LCD Line2 cmd
```

```
Lcd_String("alphabets");
```

```
while(1)
```

```
{
```

```
Lcd_Cmd(0xCB);
```

```
Lcd_Data(0x41 + i++);
```

```
// LCD Line2 cmd
```

```
if(i==26) i=0;
```

```
OSTimeDlyHMSM(0, 0, 0, 500);
```

```
}
```

```
}
```

```
/**
```

```
* Task3 to Print 0 to 9 on UART0 */
```

```
void Task3(void *pdata)
```

```
{
```

```
int i=0;
```

```
Uart0_Init(4800);
```

```
while(1)
```

```
{
```

```
uprintf("\x1b[1;1HTask3 %d04",i++);
```

```
if(i==9999) i=0;
```

```
OSTimeDlyHMSM(0, 0, 1, 0);
```

```
}
```

