

```
1  //inclusion of headers
2  #include "_threadsCore.h"
3  #include "_kernelCore.h"
4  #include "osDefs.h"
5
6  //inclusion of libraries
7  #include <LPC17xx.h>
8  #include "stdio.h"
9  #include "uart.h"
10 #include "LED.h"
11
12 //global variables
13 int thread1Call = 0;
14 int thread2Call = 0;
15 int thread3Call = 0;
16 extern threadStruct threadCollection[MAX_THREADS];
17 extern int threadCurr;
18
19 //thread functions
20 void thread1(){
21     while(1){
22         thread1Call++;
23         printf("Running thread 1. Call count: %d\n", thread1Call);
24
25         osYield();
26     }
27 }
28
29 void thread2(){
30     while(1){
31         thread2Call++;
32         printf("Running thread 2. Call count: %d\n", thread2Call);
33
34         osYield();
35     }
36 }
37
38 void thread3(){
39     while(1){
40         thread3Call++;
41     }
42 }
43
44 int main( void )
45 {
46     SystemInit();
47     printf("\nRunning L-OS-S...\r\n");
48
49
50     //Initialize the kernel
51     kernelInit();
52
53     //Initialize each thread
54     osThreadNew(thread1, TIMESLICE_DEFAULT, 2000); //will sleep
55     osThreadNew(thread2, TIMESLICE_DEFAULT, 3000); //will sleep
56     //osThreadNew(thread3, 2000, 0); //will be pre-empted
57
58     osThreadNew(idleThread, TIMESLICE_IDLE, 0); //always initialize last
59
60     //Initialize frequency of SysTick_Handler
61     SysTick_Config(SystemCoreClock/1000);
62
63
64     //Start running the threads
65     osKernelStart();
66
67     printf("L-OS-S is lost (done)");
68     while(1);
69 }
70
```