

```
1  #ifndef __KERNELCORE_H
2
3  #include <stdint.h>
4  #include <stdio.h>
5  #include <LPC17xx.h>
6  #include <stdbool.h>
7
8  #define SHPR3 *(uint32_t*)0xE000ED20 //location of the PendSV priority register
9  #define ICSR *(uint32_t*)0xE000ED04 //location of the ICSR
10
11 void kernelInit(void); //initialize memory structures and interrupts necessary to run the kernel
12
13 bool osKernelStart(); //start running the kernel, i.e. the OS
14
15 void osLoadFirst(); //called by the kernel to start running the very first thread, before getting into
    context switching
16
17 void osSched(void); //called by the kernel to schedule the next thread to run and call the context
    switcher
18
19 int task_switch(void); //called by the PendSV interrupt to set PSP to the next thread scheduled to run
20
21 #endif
```