

```
1  #ifndef __OSDEFS_H
2
3  #include <stdint.h>
4  #include <stdio.h>
5  #include <LPC17xx.h>
6  #include <stdbool.h>
7
8  //global constants
9  #define MAX_STACK 0x2000
10 #define STACK_SIZE 512
11 #define MAX_THREADS ((MAX_STACK - STACK_SIZE)/STACK_SIZE)
12
13 #define ACTIVE 0
14 #define WAITING 1
15 #define SLEEPING 2
16
17 #define DEADLINE_DEFAULT 1000
18 #define DEADLINE_IDLE 500
19
20 #define YIELD_SWITCH 0
21 #define SYSTICK_SWITCH 1
22
23 //define thread struct
24 typedef struct{
25     uint32_t* TSP; //store thread stack pointer
26     void (*fun_ptr)(void); //store thread's function pointer
27
28     int status;
29     int timer; //in ms
30     int period;
31     int deadline;
32
33 } threadStruct;
34
35 #endif
```