

```

1 /*****
2 * SysTick_Handler
3 * Interrupt Service Routine for system tick counter
4 * The name of this function cannot be changed - it establishes the linkage
5 *****/
6 .syntax unified
7 .text
8 .thumb
9 .thumb_func
10 .align 4
11 .globl SysTick_Handler
12 .type SysTick_Handler, %function
13 SysTick_Handler:
14 push {r4-r11, lr}
15 ldr r4,=CurrentTask // r4 is address of current task
16 ldr r5,[r4] // r5 is current task
17 str sp,[r5,#0] // stack pointer is first thing in TCB
18 bl scheduler
19 str r0,[r4] // save new CurrentTask
20 ldr sp,[r0,#0] // get sp from new current task
21 pop {r4-r11, pc}
22
23 .thumb_func
24 .align 4
25 .globl SVC_Handler
26 .type SVC_Handler, %function
27 SVC_Handler:
28 push {r4-r11, lr}
29 ldr r4,=CurrentTask // r4 is address of current task
30 ldr r5,[r4] // r5 is current task
31 str sp,[r5,#0] // stack pointer is first thing in TCB
32 ldr r0,=TCB //replaced
33 str r0,[r4] // save new CurrentTask
34 ldr sp,[r0,#0] // get sp from new current task
35 pop {r4-r11, pc}
36
37 .thumb_func
38 .align 4
39 .globl Yield
40 .type Yield, %function
41 Yield:
42 svc #0 // raise SVC interrupt
43 bx lr // return from subroutine
44
45 .end
46

```