

```
/* ANRC RHKI */
/* Lab5: Process Management Lab */
#include <linux/module.h>
#include <linux/kernel.h>
#include <linux/init.h>

#include <linux/delay.h>
#include <linux/kthread.h>

// #include <asm/string.h>
#define DRIVER_AUTHOR "ANRC"
#define DRIVER_DESC "Lab5"

MODULE_LICENSE("GPL");           // Get rid of taint message by declaring code as GPL.

/* Or with defines, like this: */
MODULE_AUTHOR(DRIVER_AUTHOR);    // Who wrote this module?
MODULE_DESCRIPTION(DRIVER_DESC); // What does this module do?

/* Global task structure */
struct task_struct *ts;

int init(void);
void cleanup(void);

int thread(void *data)
{
    struct task_struct *task, *tmp_task;
    int last_pid = 0;

    while(1)
    {
        for_each_process(task)
        {
            /* find a sleep process */

            /* if found, save the PID */

            /* trace process back to init, print results */

            /* force kill the sleep process */
            force_sig(9, task);
            printk(KERN_INFO "sleep_killer LKM killed sleep [%d]\n", task->pid);

        }

        /* make sure we sleep here to yield the CPU, or we hang the system */
        msleep(100);

        /* time to exit? */
        if (kthread_should_stop())
            break;
    }

    return 0;
}

int init(void)
{
    printk(KERN_INFO "init_module() called\n");
    ts = kthread_run(thread, NULL, "kthread");

    return 0;
}

void cleanup(void)
```

```
{
    printk(KERN_ALERT "Unloading sleep_killer ...\n");

    /* signal the thread to stop */
    kthread_stop(ts);
}

module_init(init);
module_exit(cleanup);
```