Programming Assignment 3

Submit Assignment

Due Apr 19 by 6pm   **Points** 100   **Submitting** a file upload   **Available** after Apr 3 at 7:15pm

Learning Objective: To gain a fuller understanding of critical sections in the Linux kernel by programming them.

Development: Use gcc and the C programming language, on the version of Linux we have in our VM.

Assignment: Re-implement your module from the device driver assignment as two separate kernel modules - one for an input device, and one for an output device, using shared memory between the two modules to manage the communication.

Don't overthink the shared memory in the kernel – do a bit of Googling about sharing memory between kernel modules, and you'll find that it's as simple as an **extern** declaration in the right place.

What you *will* need to put some work into is properly guarding the critical sections. Investigate the functionality in **linux/mutex.h**. Derek Molloy's documentation can help you here as well.

Submitting

Zip up your code, and upload it to Webcourses. Include the makefile.