

Phase 4**(Due: 11/16/2009)****Central Processing Unit/Demo System**

To more thoroughly test your CPU, you will repeat Lab2 of ELE406 using your own CPU; with I/O connects to PS/2 keyboard and VGA display. Choose whatever the methods/procedures you want, but you must perform all of the followings:

Things to do:

1. Create a memory map that indicates the locations of memory and I/O in the address space.
2. Build a simple computer system as in lab2 by adding memory and I/O to your CPU. Use the existing hardware modules, such as PS/2 and VGA. Of course, some modifications are required to custom-fit your CPU.
3. Create a TRON game with two players.

Progress Report:

1. Title: Title page includes course number and name, your CPU name as your project title, names and contact information (emails) of the team members, and date. Also, mark the lead person in this phase with a "*" associated with the name.
2. VHDL listings of your top-level entity which show how memory and I/O modules are connected to your CPU.
3. Complete block diagram of your demo system that utilizes keyboard and VGA display.
4. Complete memory map diagram and/or description.
5. Program listing.
6. Lesson Learned. (Surely, you must have learned something here!)