

Extra Credit Lab (extra 3.0%)

Instructions: How to play a game of PONG!

It may be called a CPU, but it is actually a full-blown computer! It also has memory, which can store programs written in the assembly language for this processor. In this case, it is preloaded with the classic game PONG, adapted to a display consisting of only four 7-segment indicators.

Follow these steps to play the game:

- Download the file i281_CPU.zip and unzip it on your U: drive
- Go to the new folder and open the file i281_CPU.qpf in Quartus
- Double click on i281_CPU in the upper left
- Compile the project
- Turn the Altera board on
- Ensure that all SW switches are in the 0/off position
- Turn only SW16 to 1/on
- Use the Programmer to load the i281_CPU project onto the board
- Reset the CPU by pressing Key1
- Use switch SW6 to move the paddle up or down
- When the game ends you can press Key1 to play it again
- Enjoy!

See the answer sheet for more instructions.