

Homework 6: Computer Architecture

Objective:

Build all gates described in Chapter 5 (see table below), which will test your understanding of our HACK computer architecture.

Grading method:

If the chip passes *all* the tests specified in the supplied test script, it receives 60% of the grade. 30% goes to it being well built (the lowest number of chips to implement), with the remaining 10% going towards documentation provided for each chip. Generally speaking, we prefer implementations that *use as few chip parts as possible*, even if it implies a less efficient chip design (in term of # of AND/OR/NOT chips). Higher-level chips are considered as one chip part (ex. Mux, DMux, Or8Way, etc.)

What do you turn in?

The **.hdl files** (there are 3 of them) and the **documentation.pdf** file ONLY (see Documentation Instructions for guidelines on how to do this), in a ZIP file per Project Submission Guidelines (see document on Blackboard).

Reminder: Make sure you use the ROM32K, Keyboard and Screen chips!

Chip	Working?	Well built?
Memory	/ 15	/ 5
CPU	/ 30	/ 10
Computer	/ 15	/ 5
Subtotal	/ 60	/ 30
Documentation	/	10

See <http://nand2tetris.org/05.php> for some tips/resources/tools (note that the assignment on the website may be substantially different from the assignment that is described above, if you need clarification email your instructor. You will be graded based on this documents requirements).