

Homework#1

In this homework,

1. Realize the “simple” CPU described in class in logisim, with the following differences: Your design must have 8 registers (instead of 4), each of 12 bits (instead of 16).
2. Connect the output of registers into seven segment displays.
3. Write an assembler of this CPU.
4. Write a simple program and assemble it using your assembler. Then, load the resulting machine code into the memory of your design.
5. Load some initial values into the registers and run the program, by advancing the clock pressing control-T. See if the correct values are generated in seven segment displays.