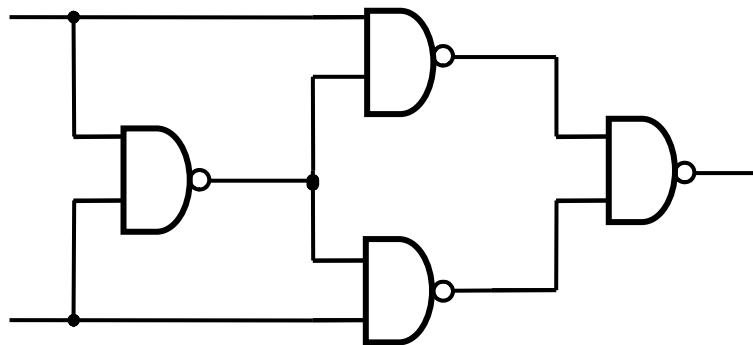# Engr354   Homework #6

DUE: Friday, October 18

Goals
- Learn about the features of your logic I/O board;
- Gain experience in building a simple logic circuit;
- Verify the theory of function reduction that we have been using in class.

To Do

1) Construct a truth table for the circuit below, listing the inputs on the left and the output on the right.

2) Dowload and install the Logisim circuit simulator (link on course web page) onto your own personal computer – or – simulate with Falstad or another logic simulator. Test all combinations of inputs and outputs.

3) Build the circuit using your logic kit. Note the suggested guidelines on the course web page on how to construct a circuit using your logic kit. Before you begin wiring, write the pin numbers from the IC (74HC00) on your circuit diagram.

4) Test your circuit by wiring the inputs to switches and the output to an LED.

To Turn In

Staple this assignment sheet to the front of your solutions, which are to be done in accordance with the school of engineering homework guidelines posted on the course web page. Include:
- Your truth tables and schematic;
- Describe any difficulties you had in both design and implementation;
- Bring your boards to class on the due date for a show and tell demonstration.