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Lab section: 2 MW 12:30~2:30 p.m.

TA:

Due: 1/18/2014

Lab Partner: None

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Title:

Lab 1: Introduction to Digital Logic

Purpose:

The purpose of this lab is to learn how to use the MultiMedia Logic (MML) application in Windows to enter and simulate a logic schematic, and to better understand how logic works by building some simple circuits.

Procedure:

This lab concludes three parts in total.

-In Part A: Using MultiMedia Logic, there are two separate parts: tutorial and De Morgan’s Laws.

-In the tutorial, building and simulating a simple logic circuit and another with logic gate, inverter gate.

Step 1: Build a simple logic circuit by connecting a switch as an input to a led as an output.

Step 2: Build another logic circuit with an inverter gate by connecting a switch as an input to an inverter gate first, and then connect the output of inverter gate to an LED as an output.

Step 3: Simulate both of the logic circuits by clicking on “run” on the top (tools).

Step 4: Turning on and off the switches, and seeing how leds change.

Step 5: Making truth tables according to the results.

-In the De Morgan’s Laws part, experiment with the logic gates by showing De Morgan’s Laws.

Step 1: Connect two switches to an AND gate.

Algorithm and Other Data:

What Went Wrong or What Where The Challenges:

Other Information:

Conclusion:

Extra: