Experiment No. 3
Hazards and Glitches
ECE 446

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September 16, 2014

Date Performed:	September 9, 2014
Instructor:	Professor Shanechi

1 Introduction

A glitch is an unwanted transient pulse at the output of a combinational circuit, and a circuit with the potential for a glitch is said to have a hazard. Not all designs will produce glitches, however, if the timing of a circuit is of critical importance, the potential for glitches must be considered and their presence may be corrected.

2 Procedure

a. Generate minimized equations.

b. Wire minimized circuit.

c. Measure gate delay.

d. Observe glitch.

e. Add term to repair glitch.

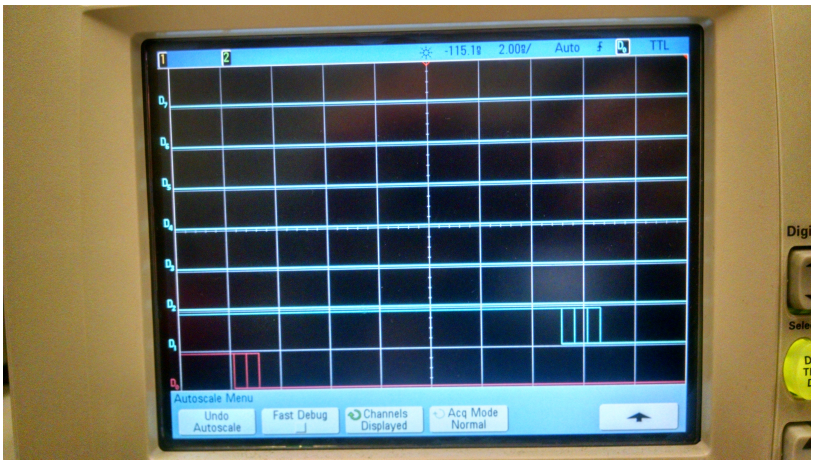
f. Observer working circuit.

3 Equipment

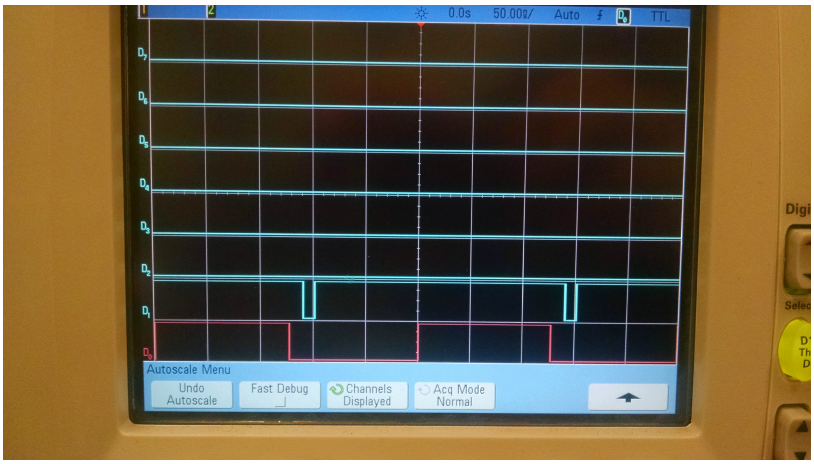
- Logic analyizer
- Breadboard
- Assorted gates

4 Results

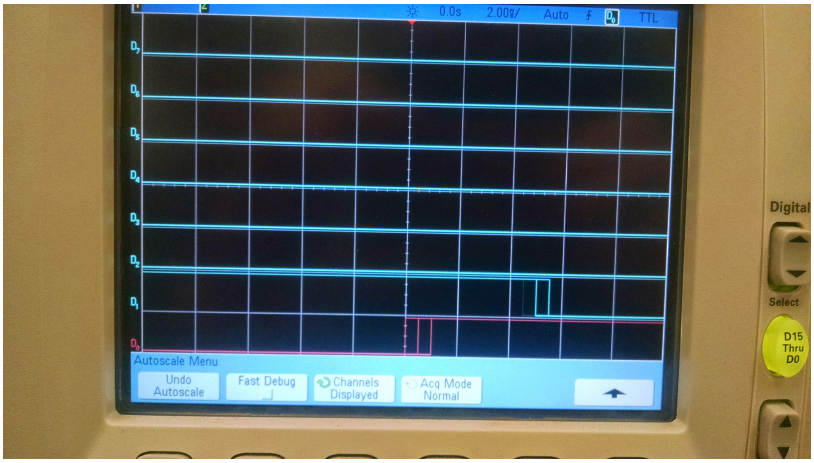
4.1 Delay



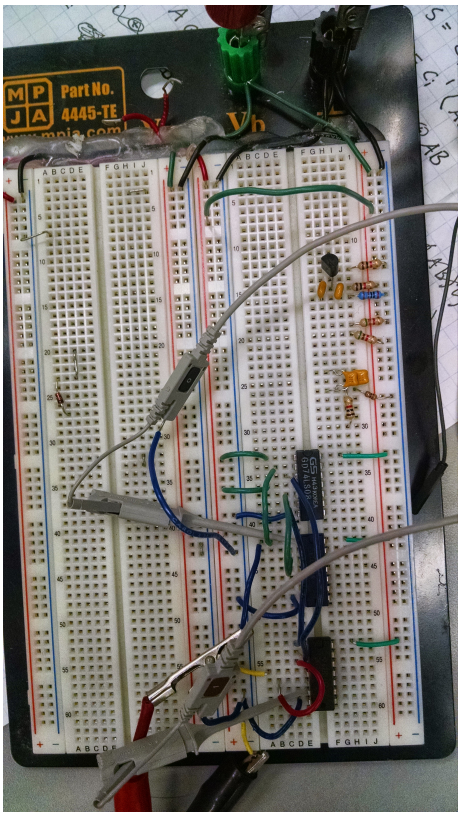
4.2 Glitch



4.3 Corrected



4.4 Breadboard



5 Conclusions

The purpose of this lab was achieved. A logic glitch was observed and corrected. In the future, logic will be designed to accomidate glitches.