ECE-301-204

# Lab1 Introduction & Binary Numbers

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02/10/2016

**Objective:**

To become familiar with building and testing digital logic circuits on the ET-1000 Trainer.

**Materials and Equipment:**

- 74LS161 4-bit Binary Counter
- 13 wires
- ET-1000 Trainer (5-volt power supply)
- Breadboard

**Laboratory Data:**

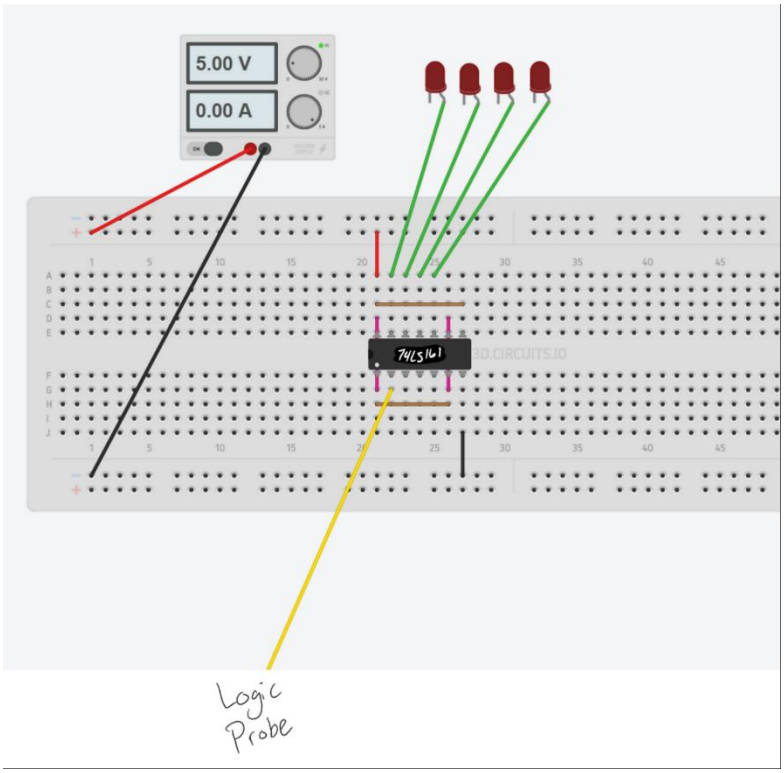


Illustration of how the lab was to be set up and tested. When the lab was set up correctly and power was connected the 4 lights representing 4 bits in binary counted from 0-15.

**Theoretical Data:**

Not necessary for this lab since this was a “get your feet wet” lab. There was nothing to predict, it was just follow the instructions correctly and get the lights to count in binary.

**PSPICE Simulation Results:**

Not necessary for this lab.

**Comments and Conclusions:**

This beginning lab definitely gives a little insight in to what we will be looking forward to for this Lab part of ECE 301. There will definitely have to be some logical thinking and processes put into these labs as they gradually get harder. This lab demonstrated to us how to send power through an IC and to utilize the 4-bit binary counter IC. This lab helps as a good stepping stone into future labs where we can always use this one as reference.