

ECEN 220 – Fall 2017

<Lab 2: Discrete Gates>

<Coryell>, <John>

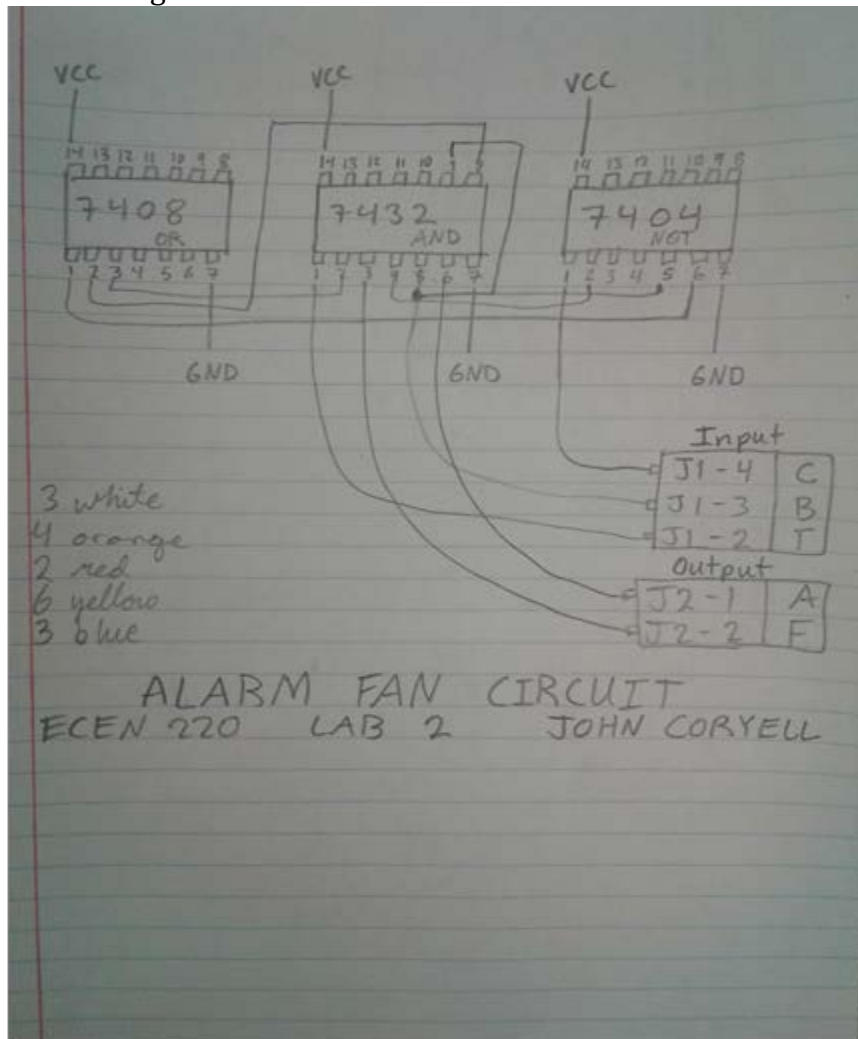
<Section 2>

Preliminary

1. $A = C'BT + C'BT'$
 $F = C'B'T + CB'T + CBT$
2. $A = C'B$
 $F = T(B' + CB)$

Exercise #1

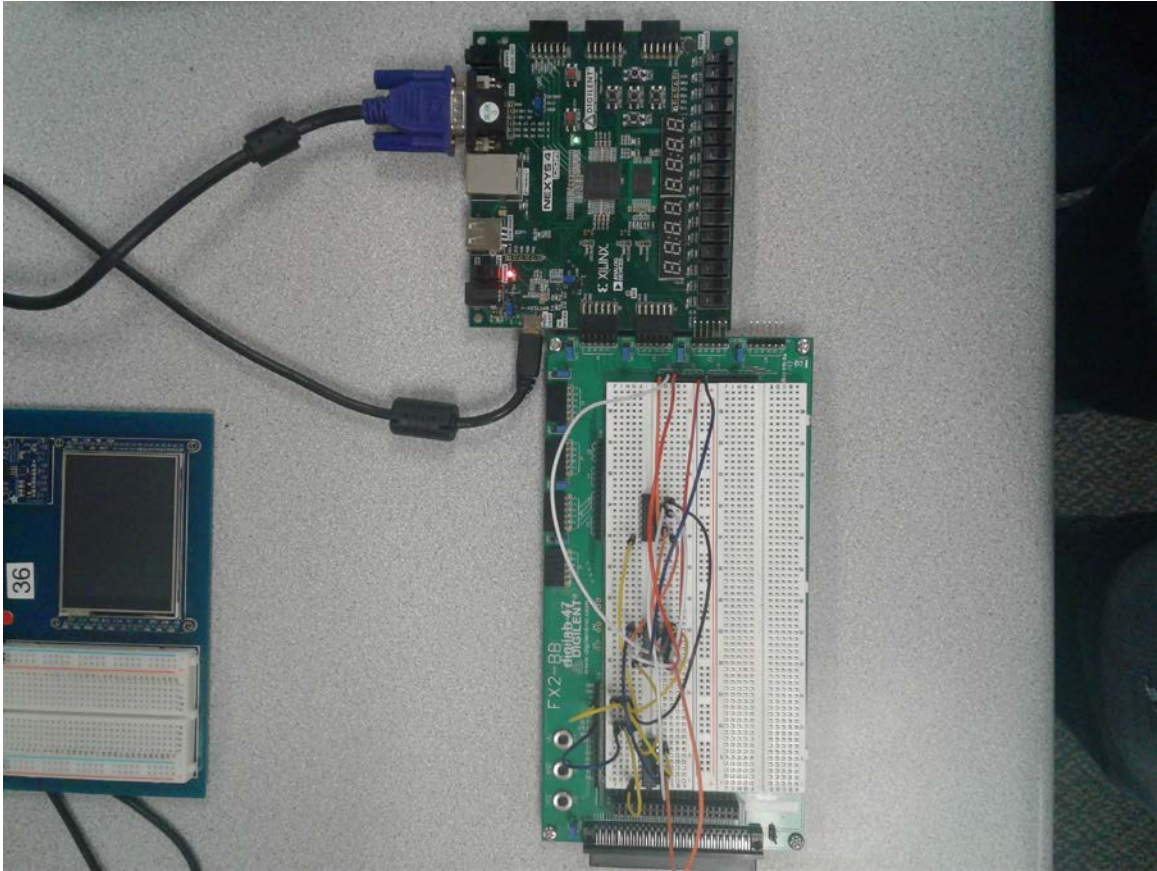
Circuit Diagram:



Exercise #2

Including Power and Ground wires, I used a total of 18 wires.

Exercise #3



Personal Exploration

For my Personal Exploration activity portion of the lab, I went over the various combinations of switch patterns required to make the board do certain functions. My original setup was accurate and perfect, except my IC 7432 and 7408 chips were reversed and in the wrong position. After “debugging” so to speak, my lab functioned properly and worked great!

How many hours did you work on the lab?

2.5

Please provide any suggestions for improving this lab in the future:

The lab was pretty simple, except the instructions could use some revision, I would specifically state that the TA's have IC chips to borrow instead of purchasing your own. Also I would suggest where to get the wires required for this.