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EECE2060/Lab 3
Report Due:
Sept. 18, 2017

Sept. 17, 2017

Computer Interface Design:
Project Design Report

Requirements:

- Summary: Simulating the computer interface to a design printer, seven inputs must indicate the printing of a character, a return, and a movement to the line's beginning.

- Inputs: A – G

- Outputs: X, Y, Z
  - X will only output logic 1 for the command to go to a lines beginning (13_{10})

  - Y will only output logic 1 when the command for a newline is given (10_{10})

  - Z will only output logic 1 for a printable character 32_{10} – 127_{10}

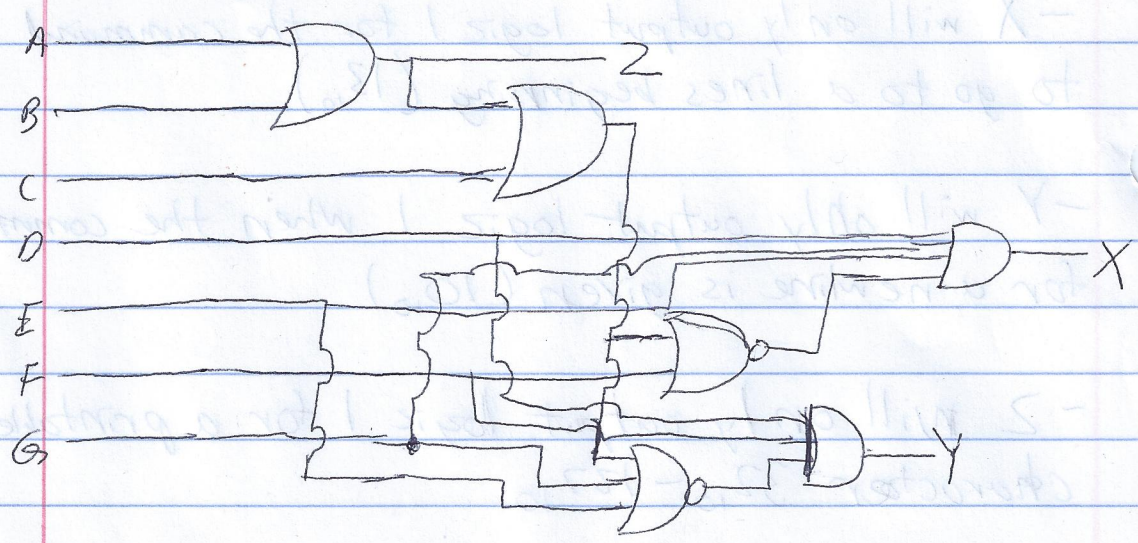
- A-G will be switches while X, Y, Z will be LEDs in this lab

- Due to the massive amounts of inputs, a truth table should be avoided

Design:

- **Boolean Expression:**
  - $Z = A + B$
  - $X = (DEG)(Z + C + F)'$
  - $Y = (DF)(Z + C + E + G)'$

- **Gate Design:**



Test Procedure:

A	B	C	D	E	F	G	X	Y	Z	Purpose
0	0	0	0	0	0	0	0	0	0	How does it work with nothing
0	0	0	1	1	0	1	1	0	0	Does X work and others not
0	0	0	1	0	1	0	0	1	0	Does Y work and others don't
0	1	0	0	0	0	0	0	0	1	Does Z start
1	0	0	0	0	0	0	0	0	1	Testing Z
1	1	1	1	1	1	1	0	0	1	Z final test

Duration: 3 hours