DLD PROJECT PROPOSAL

Members:

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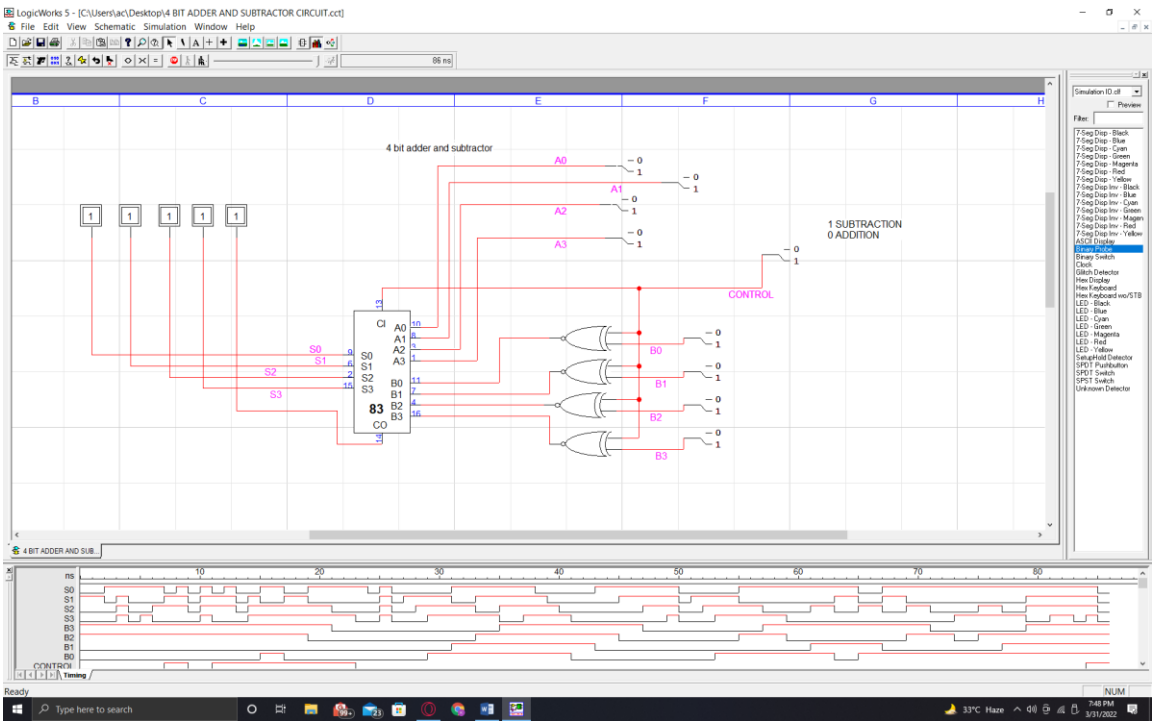
Project Title:

4-Bit ALU SYSTEM

1. 4-bit Adder
2. 4-bit Subtractor

We will be designing a circuit to add two 4 bit binary numbers and on the same circuit by changing control we will subtract two 4-bit binary by using the concept of the advance gate and 2's complement.

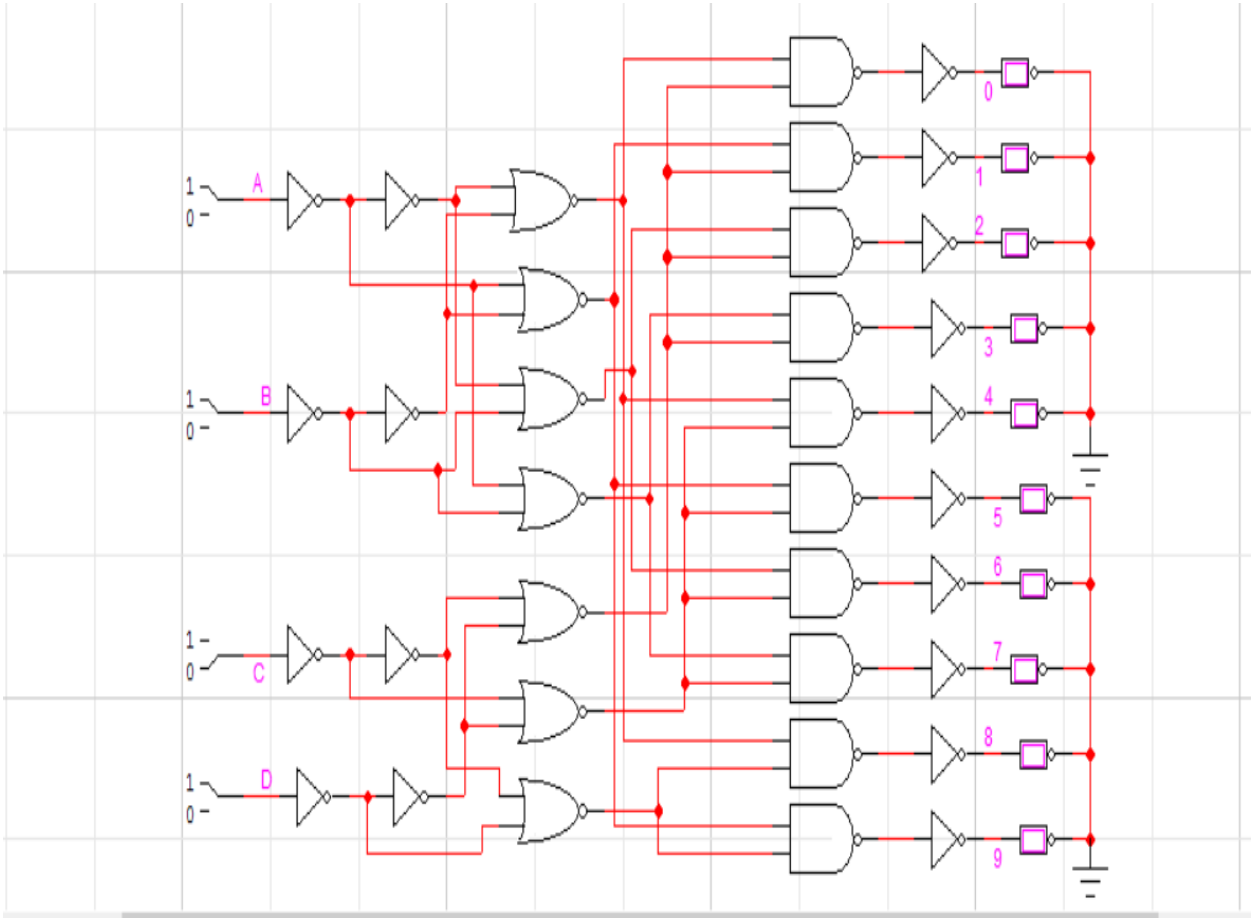


NOTE: The circuit given is finalized

3.) 4-bit Binary to decimal Converter

We will be designing a circuit to convert a number from oooo to 1001 into their decimal equivalent (1-9) by using the concepts of the decoder.

NOTE: The circuit given is not finalized we have designed this circuit to our understanding we will modify it as we learn more advanced topics in dld



Components:

Component	Quantity
74ls83 IC (Adder Ic)	2
7408IC (And Ic)	1
7432 IC (OR Ic)	1
74266 IC (Xnor Ic)	1
Jumper wires	50
Breadboard	2
Vero board	2
Soldering Machine	1
4 input Dip switches/ push button	8 16
light bulb	16
74LS47 (7 segment decoder Ic)	2
6 to a 9-volt battery	2
LEDs	2

NOTE: More components will be used as we implement

Concepts Covering:

- *Full/Half adder and Subtractor*
- *2's complement*
- *Decoder*
- *Basic and advanced gates*
- *Binary to decimal*