

Lab – 7

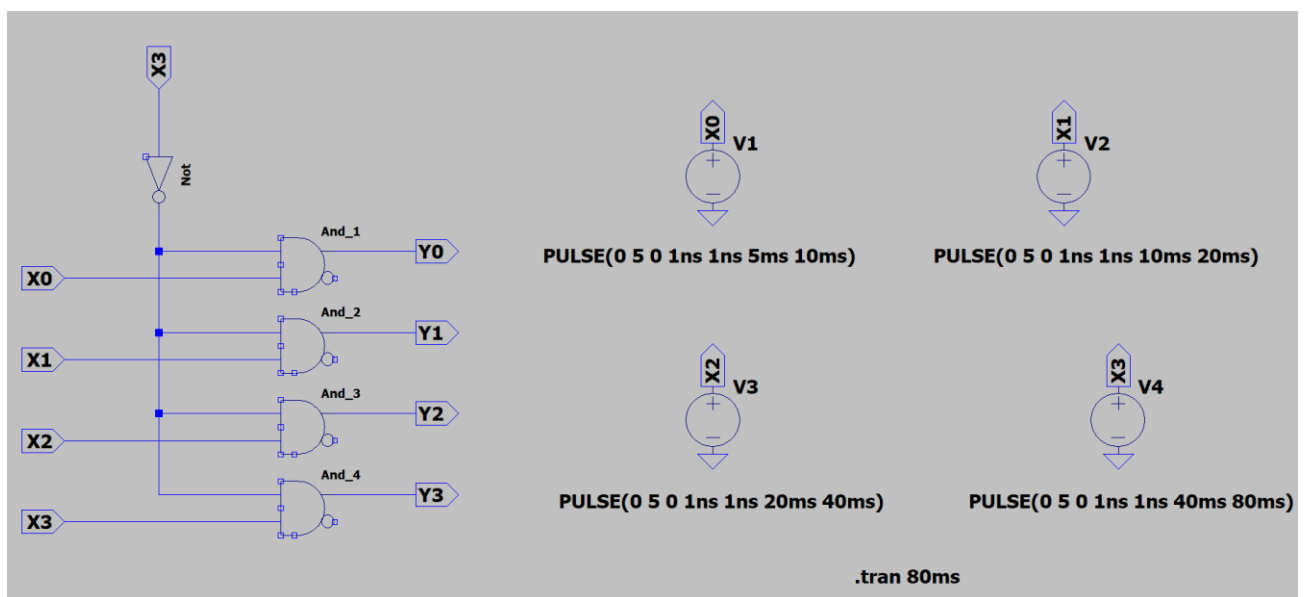
ECN - 252

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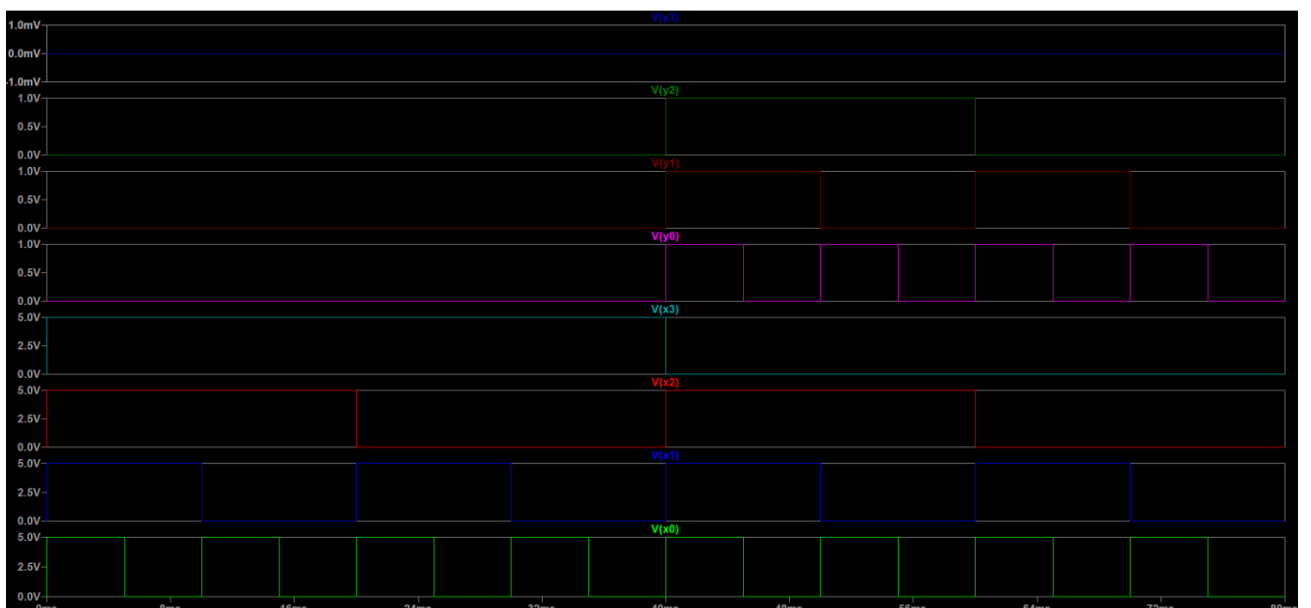
Part 1 :

- i) **Logic to check for number is negative or positive:** If the most significant bit of 4-bit number is 1 then the number is negative else positive.
- ii) **ReLu Function**

Schematic

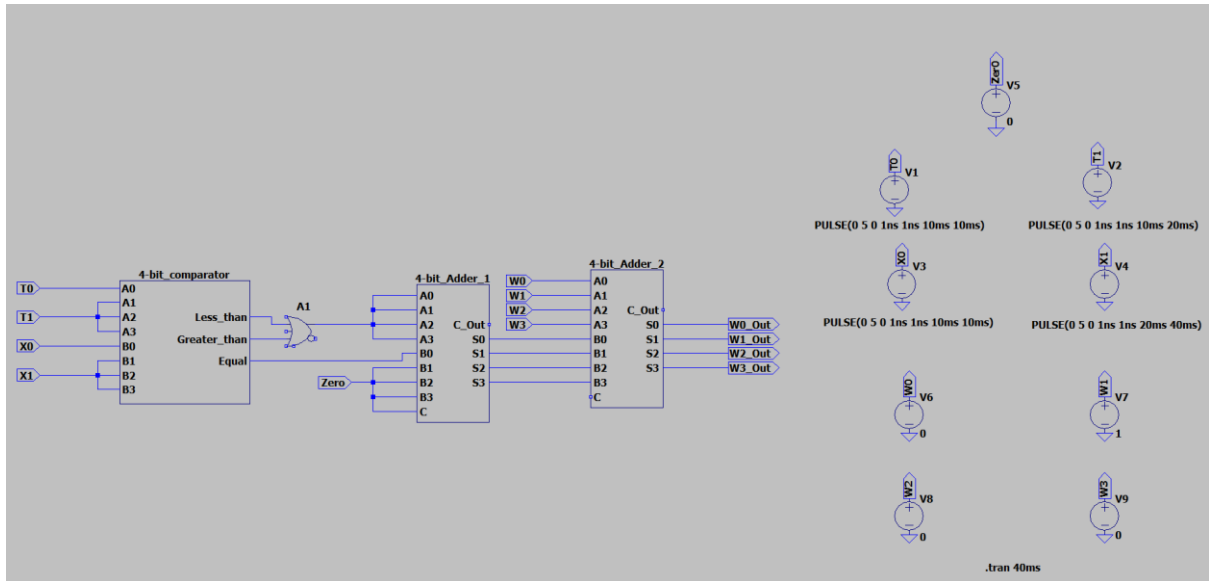


Simulation

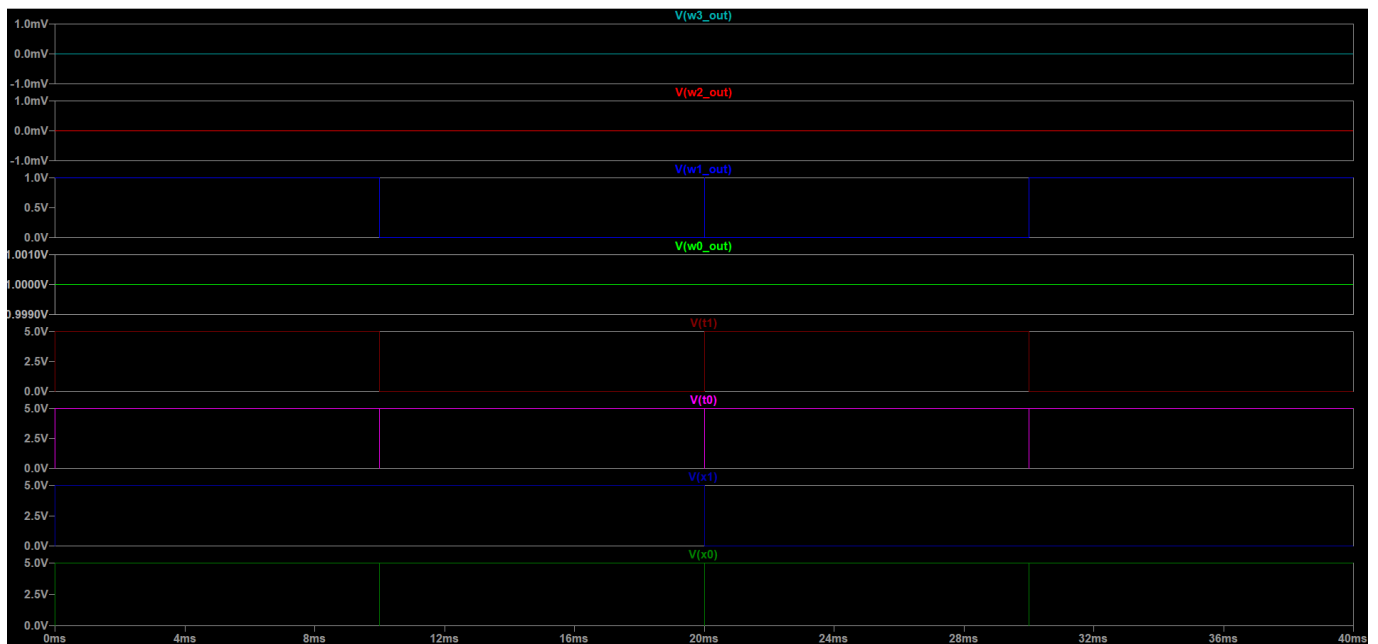


Part 2 :

Schematic



Simulation

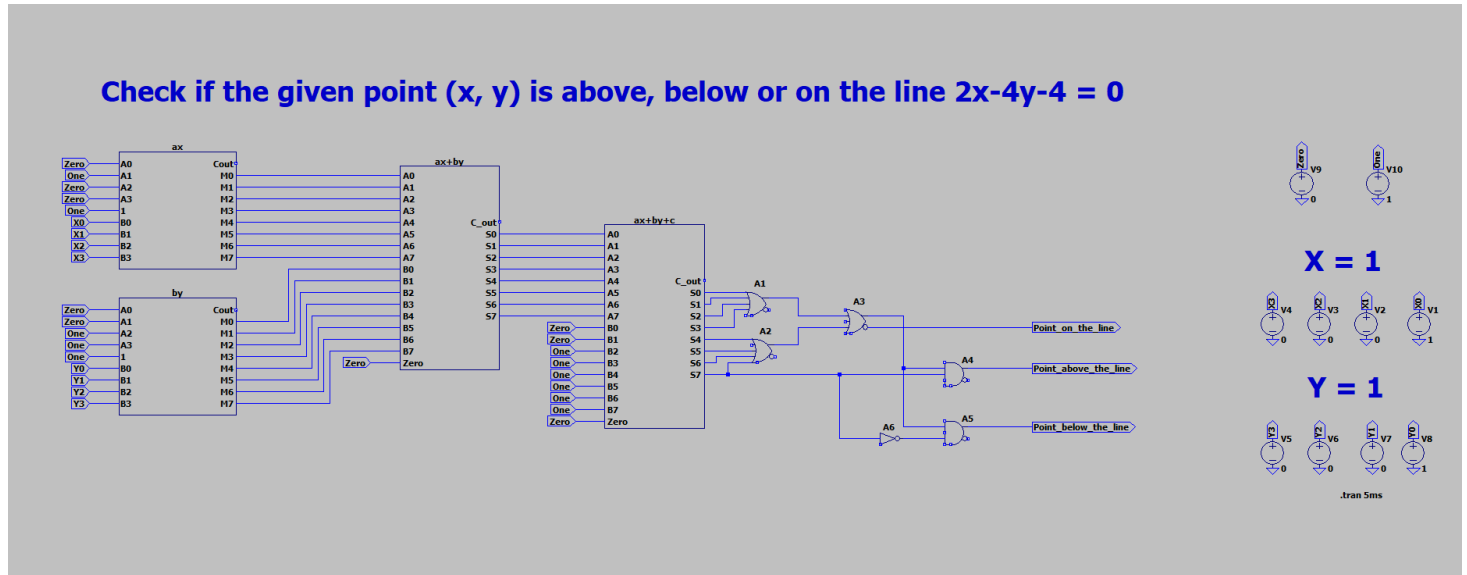


Part 3 :

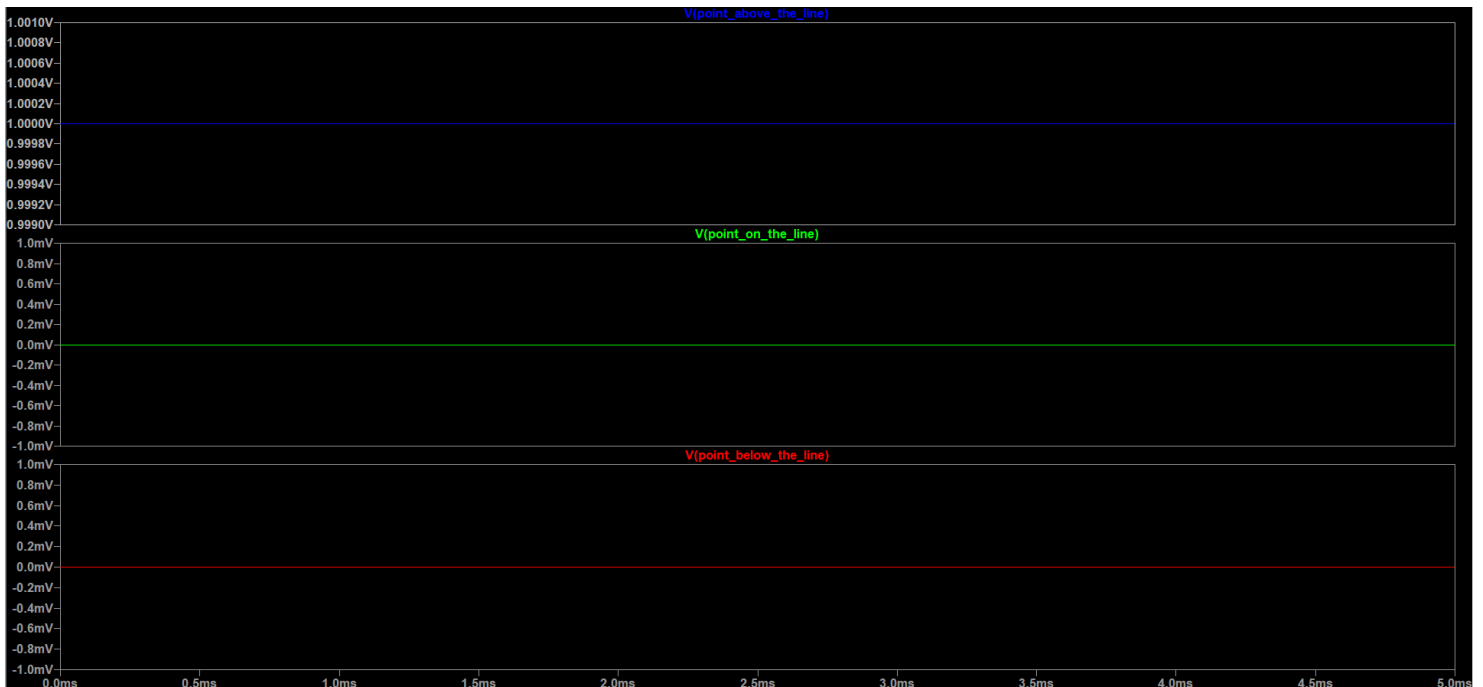
$$\text{Line Equation} \Rightarrow 2x - 4y - 4 = 0$$

Check Above the line $X = 1$, $Y = 1$

Schematic

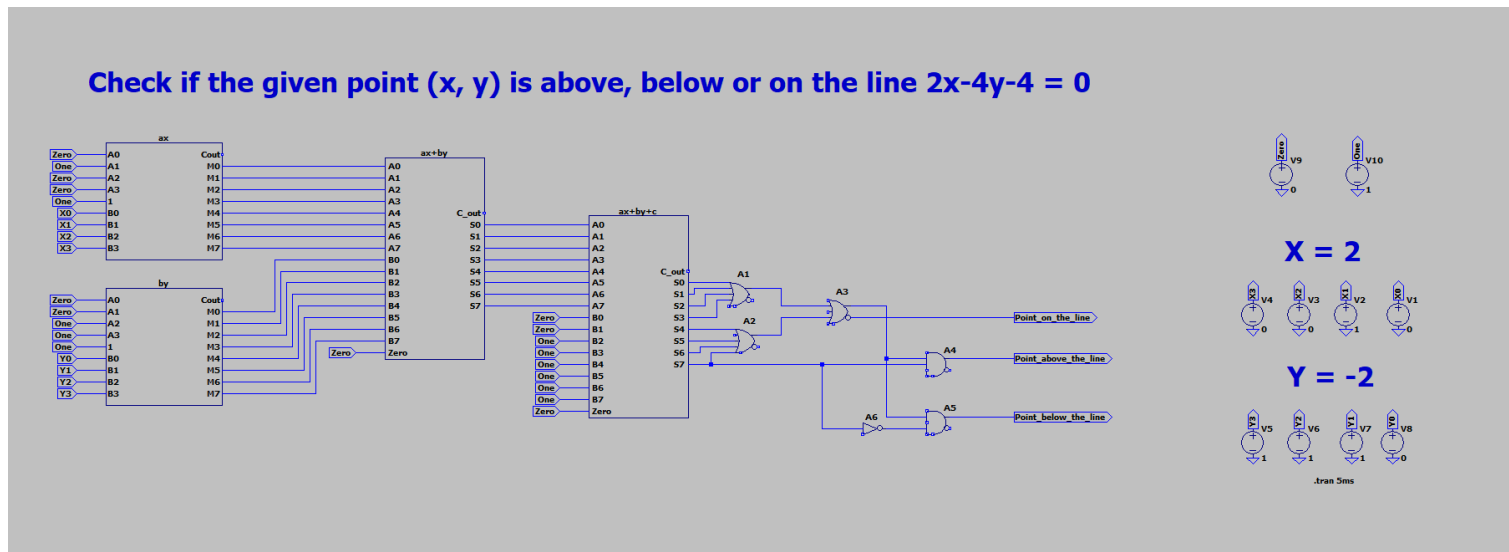


Simulation



Check Below the line $X = 2, Y = -2$

Schematic



Simulation

