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ASSIGNMENT-1

0.1 Design of Xnor Gate using nor gates

0.2 Contents

Abstract- **This manual shows how to design Xnor gate using nor gates**

0.3 Components

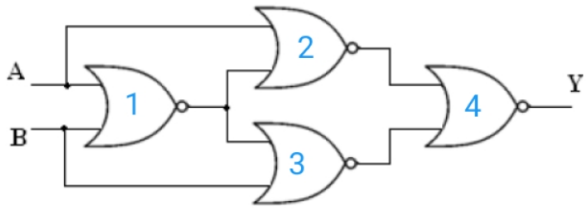
Component	Value	Quantity
Resistor	220 Ohm	1
Arduino	UNO	1
LED		1
Jumper Wires	M-M	20
Breadboard		1

Table 3.0

0.4 Xnor Truth Table

A	B	G(A,B)
0	0	1
0	1	0
1	0	0
1	1	1

0.5 Circuit Diagram



0.6 Boolean Logic

1=(A+B)'
2=(A+x1)'
3=(B+x1)'
4=(x2+x3)'

0.7 Hardware

Arduino	D13	GND
Led	+VE	-VE

Table 7.0

0.8 Hardware Connection

Give the connections as per Table 3. For taking the inputs connect 5V of arduino to +ve line of bread board to consider it as logic 'HIGH'.Connect GND pin of arduino to -ve line of bread board to consider it as logic 'LOW'.
For example if the inputs A,B are connected 1,0 respectively the output should be 0 i.e., the LED connected to the 2nd pin should turn off.
In the another case if we connect the inputs A,B to 1,1 respectively the output should be 1 i.e., the LED connected to 2nd pin should glow

0.9 Software

1.Connect the arduino to the USB port of computer
2.Download the follwing code

https://github.com/kedareswari200/fwc-module1/blob/main/assi1_assembly/assem.asm

3.Upload the code into the arduino board.
4.The output '1' is represented as the state:'LED ON' and '0' is represented as the state 'LED OFF'