

AVR-GCC ASSIGNMENT

BOLLA VAMSIKRISHNA

bollavamsi04@gmail.com

IITH - Future Wireless Communications (FWC)

CONTENTS

I	QUESTION	1
II	CIRCUIT DIAGRAM	1
III	COMPONENTS	1
IV	TRUTH TABLE	1
	IV-A LOGIC	1
V	PROCEDURE	2
VI	CONCLUSION	2

III. COMPONENTS

Component	Values	Quantity
Arduino	UNO	1
JumperWires	M-M	5
Breadboard		1
LED		1
Resistor	220ohms	1

Table.COMPONENTS

IV. TRUTH TABLE

I. QUESTION

Solve the given logic block and find the output F, verify its output using an LED.

II. CIRCUIT DIAGRAM

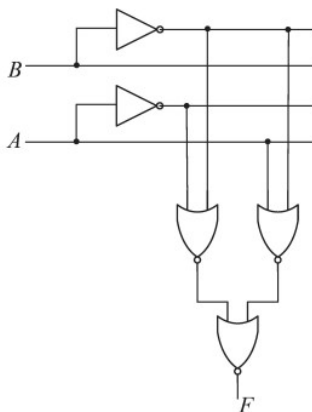


Fig. 1. Logic Block



A	Q
0	1
1	0

Fig. 2. Not GATE TRUTH TABLE

A. LOGIC

From the Logic Block we get

$$F = \overline{B} \quad (1)$$

Which is the logic of a Not gate

V. PROCEDURE

- 1) Connect the anode (longer leg) of the LED to digital pin 13 (PB5) on the Arduino Uno.
- 2) Connect the cathode (shorter leg) of the LED to a current-limiting resistor (e.g., 220 ohms).
- 3) Connect the other end of the current-limiting resistor to the GND (ground) pin on the Arduino Uno.
- 4) Use digital pin 3 on the arduino board to give the input manually.

VI. CONCLUSION

Hence we have found the F from digital circuit given. Execute the circuit using below code.

<https://github.com/Vamsichowdary04/FutureWirelessCommunicationFWC/blob/main/avrgcc/codes/main.c>