



Platformio Assignment

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I. ABSTRACT

This study explores Universal Logic Gates, focusing on NOR and NAND gates as they can implement any Boolean function. The significance of these gates in simplifying digital circuits is emphasized. Additionally, transformer characteristics in AC circuits are briefly analyzed. Key concepts in logic and electrical systems are interlinked.

II. COMPONENTS

The required components list is given in Table I.

components	value	quality
Led		1
Arduino	UNO	1
jumperwires		50
Breadboard		1

TABLE I

III. PROCEDURE

- 1) Convert the Led's to the Arduino uno.
- 2) Give the inpts manually using jumper wires.
- 3) Truth table for NOT and OR gates.

A	B	A NOR B	A OR B
0	0	0	...
0	0	1	...
0	1	0	...
0	1	1	...
1	0	0	...
1	0	1	...
1	1	0	...
1	1	1	...

TABLE II

- 4) check the outputs by changing inputs as per truth table.
- 5) Execute the arduino code using the pio run command in nvim editor.
- 6) After upload the code into hardware setup using arduino IDE platformio.

IV. RESULT

- 1) Download the code given in the linkbelow and execute them to see the output as shown in Fig.1.
- 2) <https://github.com/kalpanasunkari/FWC/tree/main/Assembly>

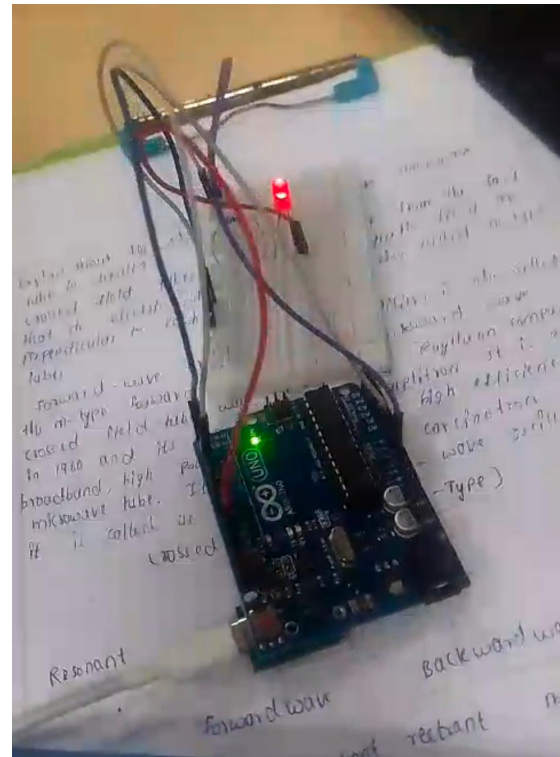


Fig. 1.

V. CONCLUSION

Hence implementation of platformio using LED is done and verified through truth table.