

IMPLEMENTATION OF BOOLEAN LOGIC IN AVRGCC

B JAYASRI

r180747@rguktrkv.ac.in

IITH - Future Wireless Communications (FWC)

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2 Components

Component	Values	Quantity
Arduino	UNO	1
JumperWires	M-M	15
LCD		1
Bread board		1

3 LCD PINS

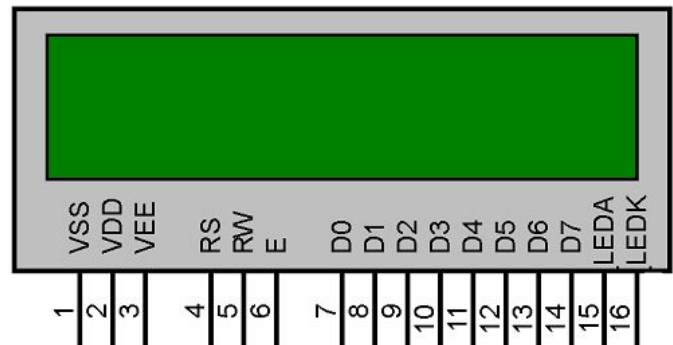


Fig. 2: LCD

1 Question

- 1) For the 3-bit binary counter shown in the figure, the output increments at every positive transition in the clock (CLK). Assume ideal diodes and the starting state of the counter as 000. If output high is 1 V and output low is 0 V, the current I (in mA) flowing through the $50\ \Omega$ resistor during the 5th clock cycle is (up to one decimal place)

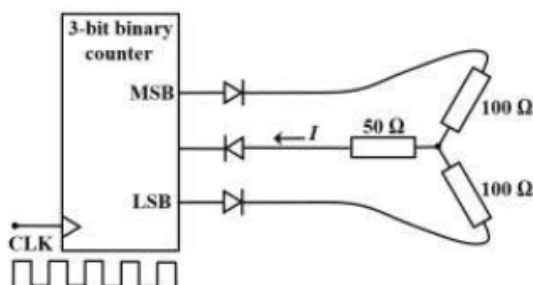


Fig. 1: circuit

4 Implementation

Arduino PIN	LCD
D7	RS
D8	EN
D9	11
D10	12
D11	13
D12	14
5V	VCC

Connections

5 Procedure

1. Connect the circuit as per the above table.
2. connect the LCD to Arduino UNO

<https://github.com/r180747/FWC-1/blob/main/AVR-GCC/code.c>

6 LCD OUTPUT

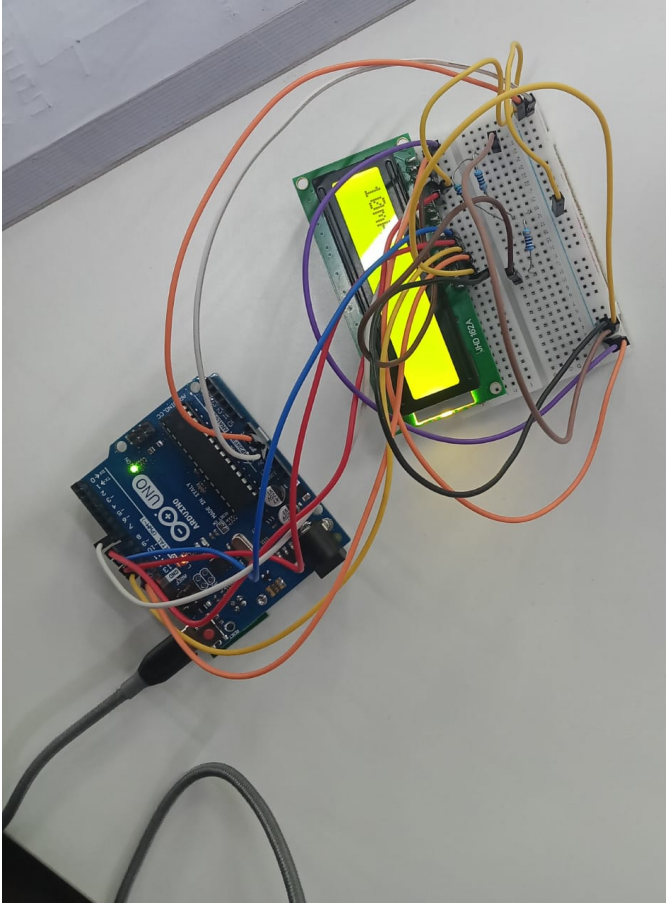


Fig. 3: output