26-10-2023

INTERNAL STORAGE → assembly (4 items) → hello. hex

ASSEMBLY

→ AND GATE

→ OR GATE

→ NAND GATE

LSR → LOGICAL SHIFT RIGHT

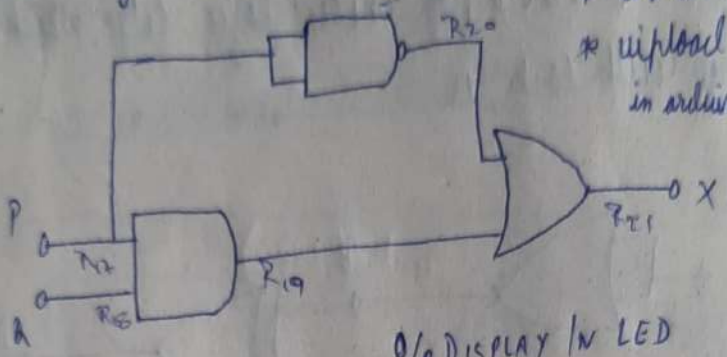
GATE

PH2023, 24

/sd card / assembly # nvim hello. asm

Q 24. Which one of the following options is CORRECT for the given logic circuit?

* nvim . asm file
* avra . asm
* upload precompiled in arduino droid



O/P DISPLAY IN LED

SOLUTION:- COMPLETED

(A) P = 1, Q = 1 ; X = 0

(B) P = 1, Q = 0; X = 1

(C) P = 0, Q = 1; X = 0

(D) P = 0, Q = 0 ; X = 1

SOLUTION:-

INPUTS => P ; Q

OUTPUT => X

P => BLUE

Q => VIOLET

By using binary algebra

TRUTH TABLE

$X = \bar{P} + PQ = \bar{P} + \bar{P}Q = \bar{P} + Q$

$P = 0 ; Q = 0$

$X = \bar{P} + Q$

$= \bar{0} + 0$

$= 1 + 0$

$X = 1$

X	- - 0 -	
Q	0 - 0 -	
P	0 0 - -	

FILENAME = nvim hello. asm

nvim hello. asm

OPTION : D

. include "/home/gadepal/m328Pdef.inc"

$\therefore P = 0 ; Q = 0 ; X = 1$

ARDUINODROID => Actions → Upload → Upload Precompiled → assembly → hello. hex

31-10-2023

ASSEMBLY

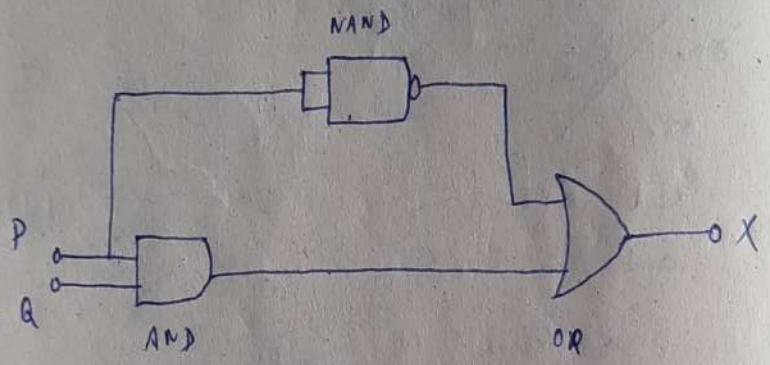
COMPLETED

GATE

PM2023,24

INTERNAL STORAGE → assembly[4ITEMS] → hello.hex

Q24. Which one of the following options is CORRECT for the given logic circuit?



SOLUTION:-

By using binary algebra

$$X = \bar{P} + PQ = \bar{P} + \bar{P}Q = \bar{P} + Q$$

$P = 0 ; Q = 0$

$$X = \bar{P} + Q$$
$$= \bar{0} + 0$$
$$= 1 + 0$$
$$X = 1$$

O/P:- DISPLAY ON LED

$\therefore P = 0 ; Q = 0 ; X = 1$

TRUTH TABLE:-

P	Q	X
0	0	1
0	1	1
1	0	0
1	1	1

CODE :-

```
→ .include "/sdcard/digital-design/assembly/setup/m328Pdef/m328Pdef.inc" ; Include file for ATmega328P

→   ldi r16, 0b11111001
→   out DDRB, r16
→ Start:
→       in r17, PINB
→       in r18, PINB
→       lsl r17
→       lsl r17
→       lsl r18
→       and r17, r18

→       lsl r18
→       lsl r18
→       and r18, r18
→       com r18

→       lsl r17
→       lsl r17
→       lsl r18
→       or r17, r18
→       out PORTB, r17
→ rjmp start
```

[P.T.O]

STORAGE PATH

FILES =>

INTERNAL STORAGE -> assembly [4 ITEMS] -> hello.hex

TERMUX :-

/sdcard/assembly # nvim hello.asm

FILE NAME :-

nvim hello.asm

INPUTS => P ; Q { P -> BLUE JUMPER WIRE, Q -> VIOLET JUMPER WIRE }

OUTPUT => X

1 -> LED "ON"

TRUTH TABLE :-

P	Q	X
0	0	1
0	1	1
1	0	0
1	1	1

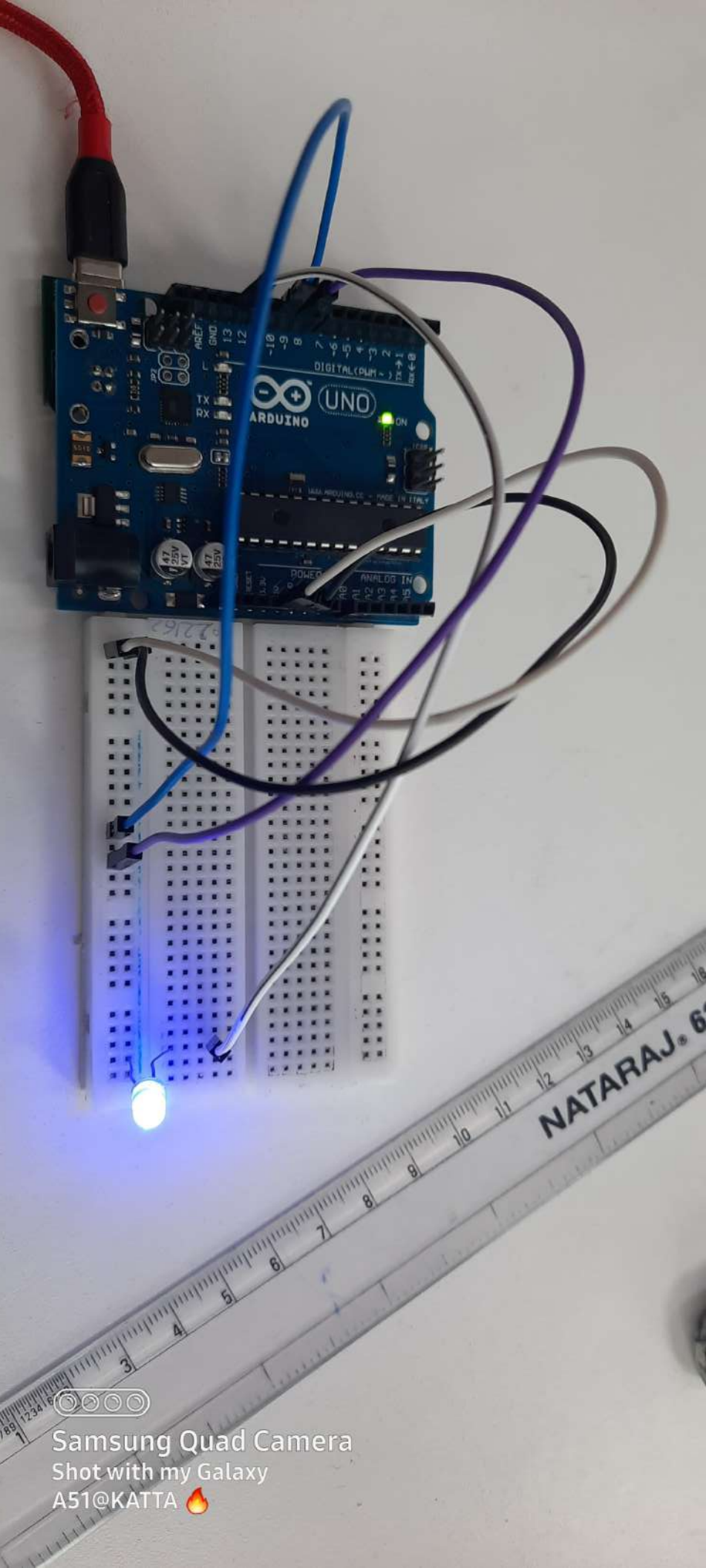
* nvim.asm file
* avra.asm {avra.asm}
* upload precompiled in arduino droid

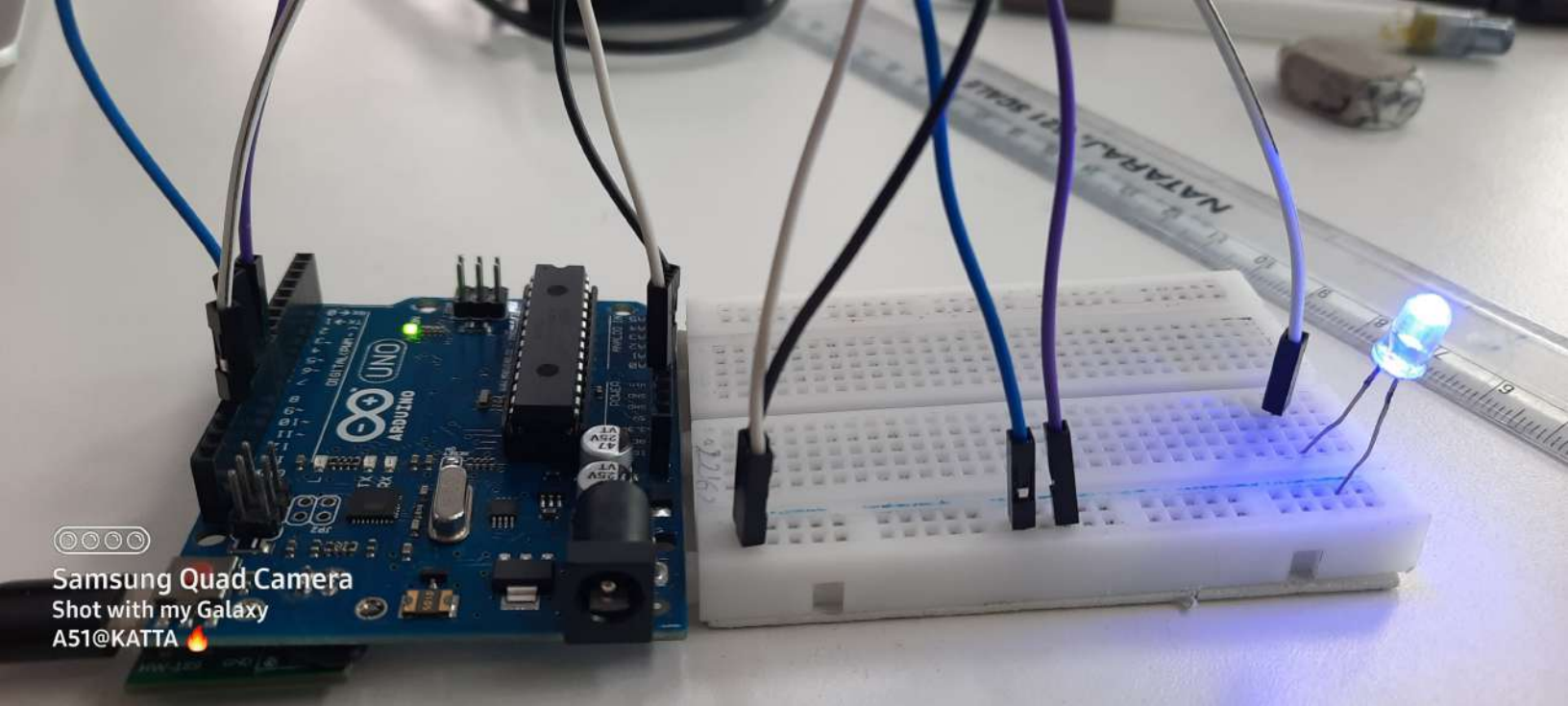
CONNECTIONS => ARDUINO TO BREAD BOARD

ARDUINO	BREAD BOARD
GND	GND
5 V	+ve
PIN-9	+ve [5V]
PIN-10	-ve
PIN-13	LED

LED =>

LED	BREAD BOARD
+ve	ANYWHERE CONNECTED TO 13 PIN OF ARDUINO
-ve	GND


UNO
NATARAJ
Samsung Quad Camera
Shot with my Galaxy
A51@KATTA


UNO
ARDUINO
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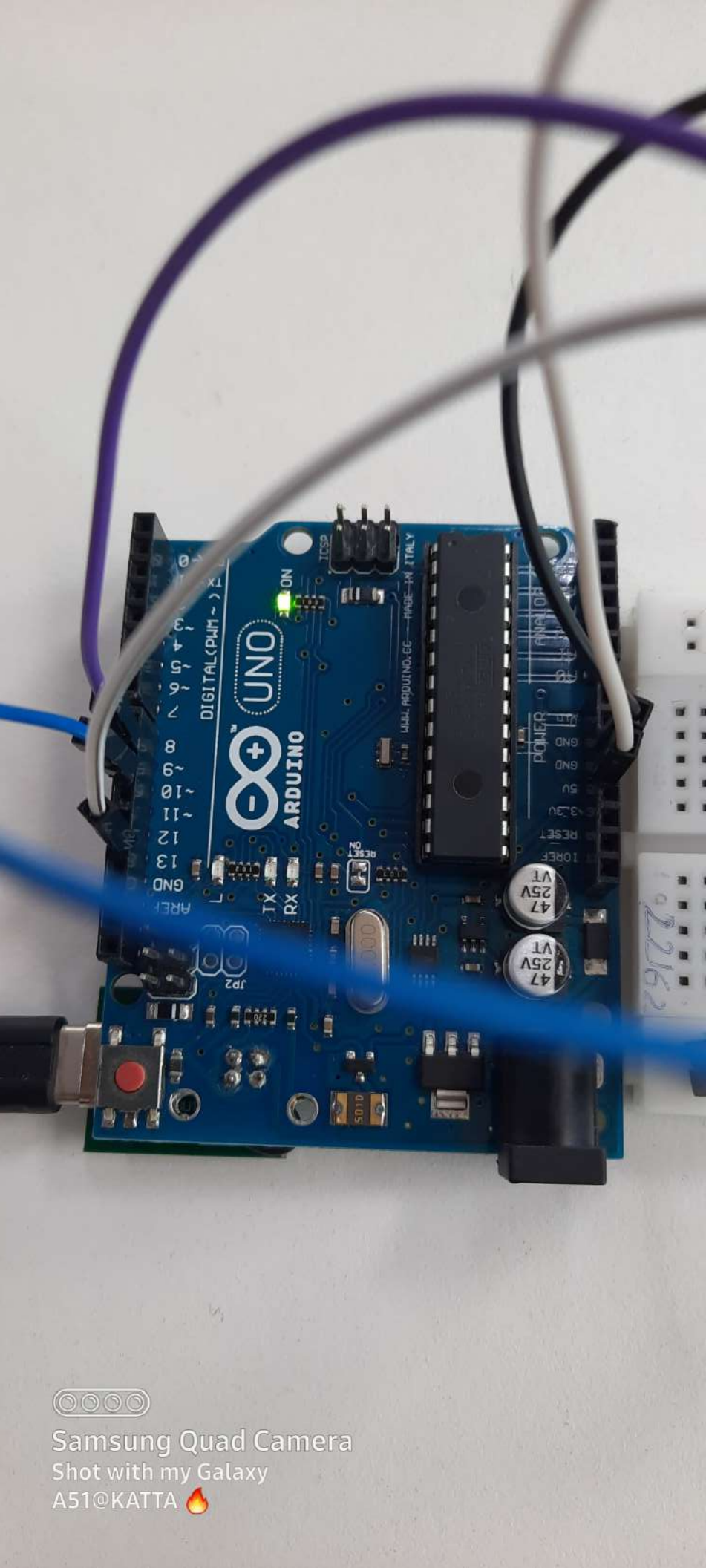

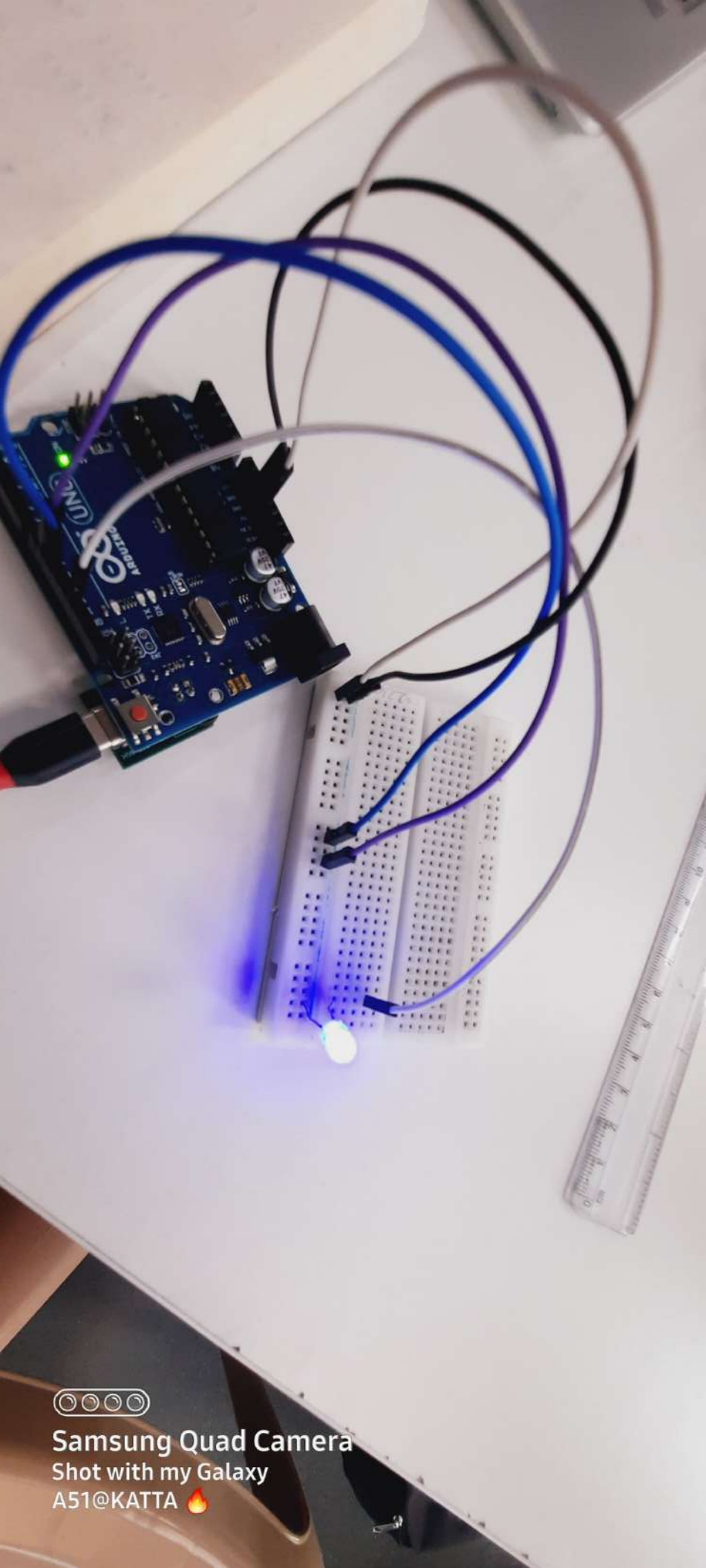
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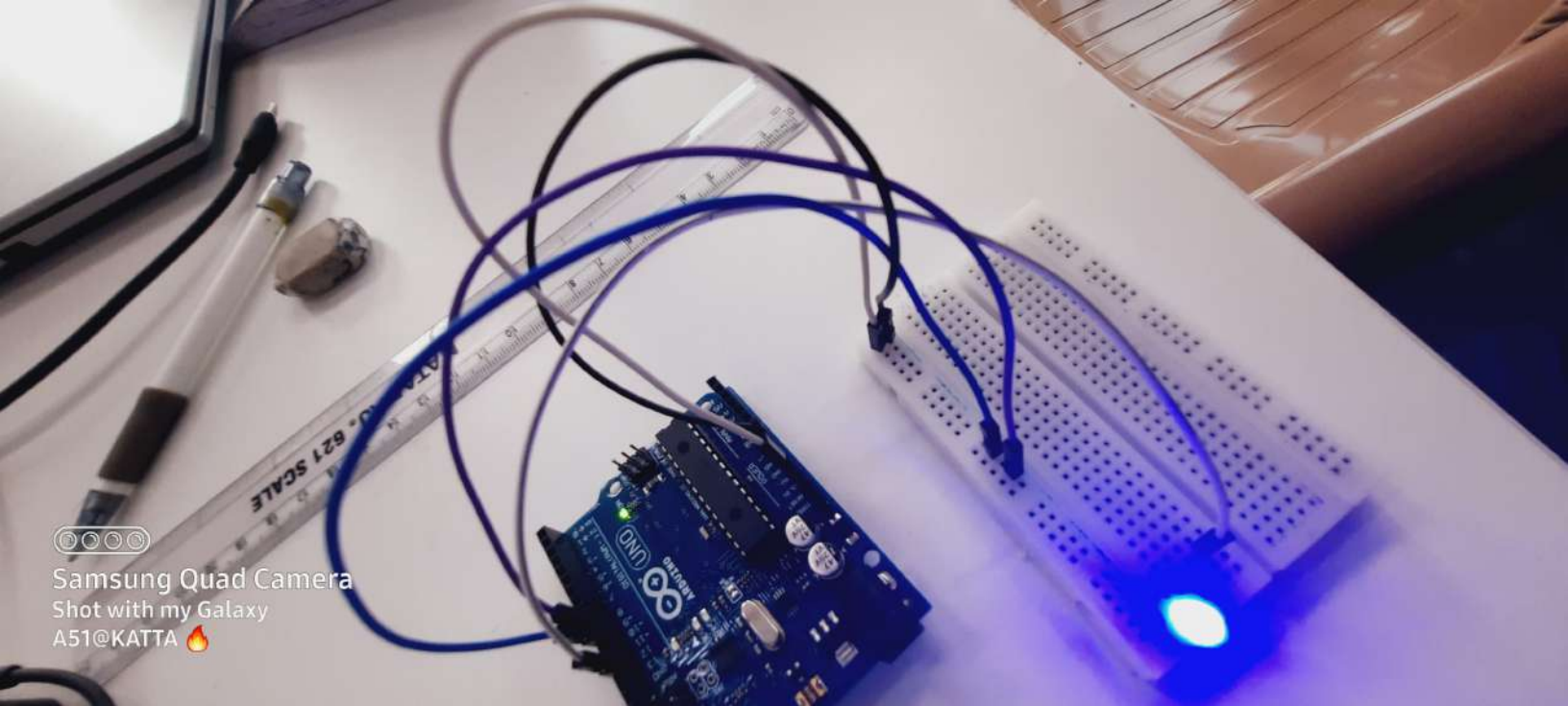
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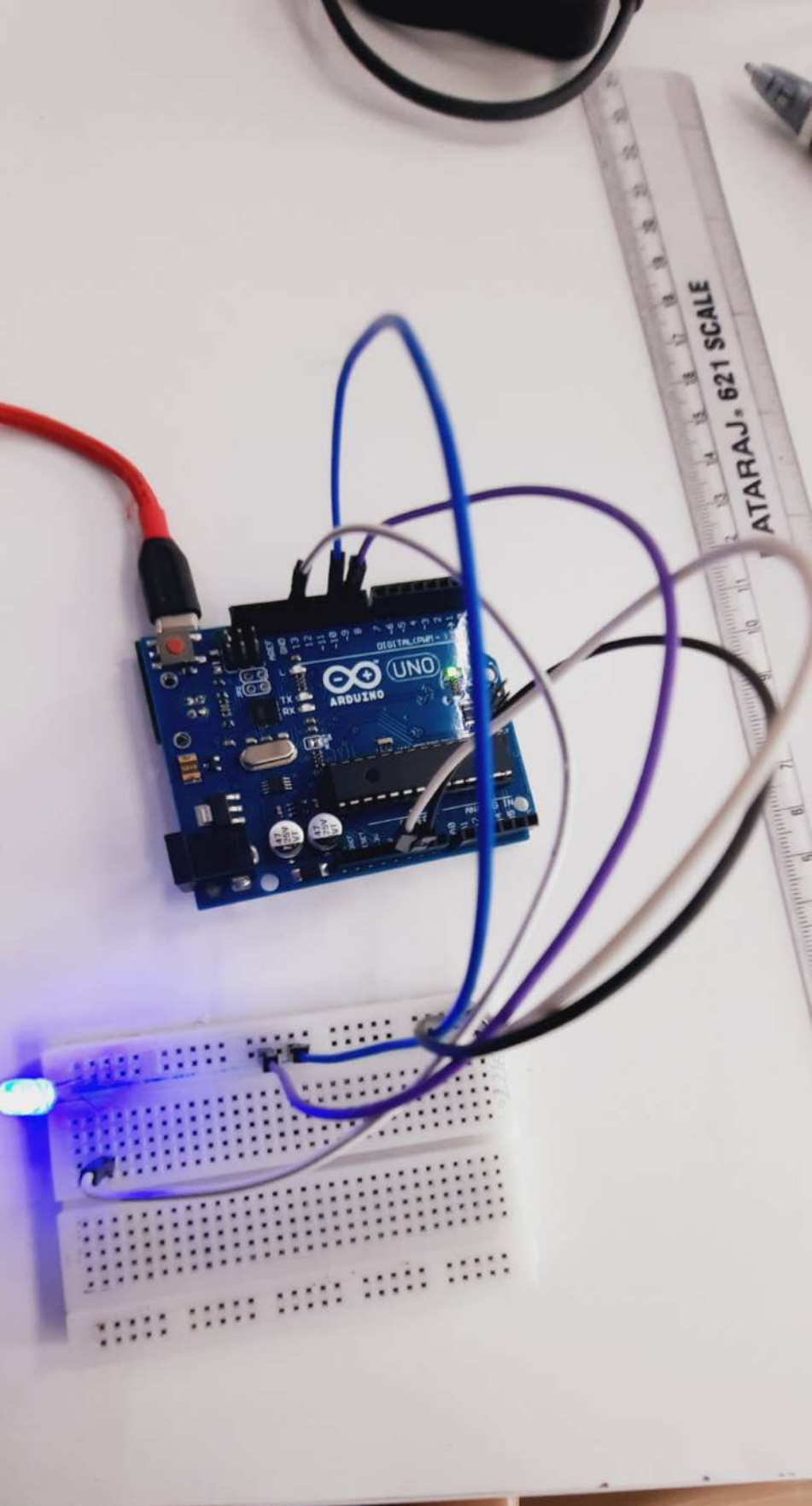

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