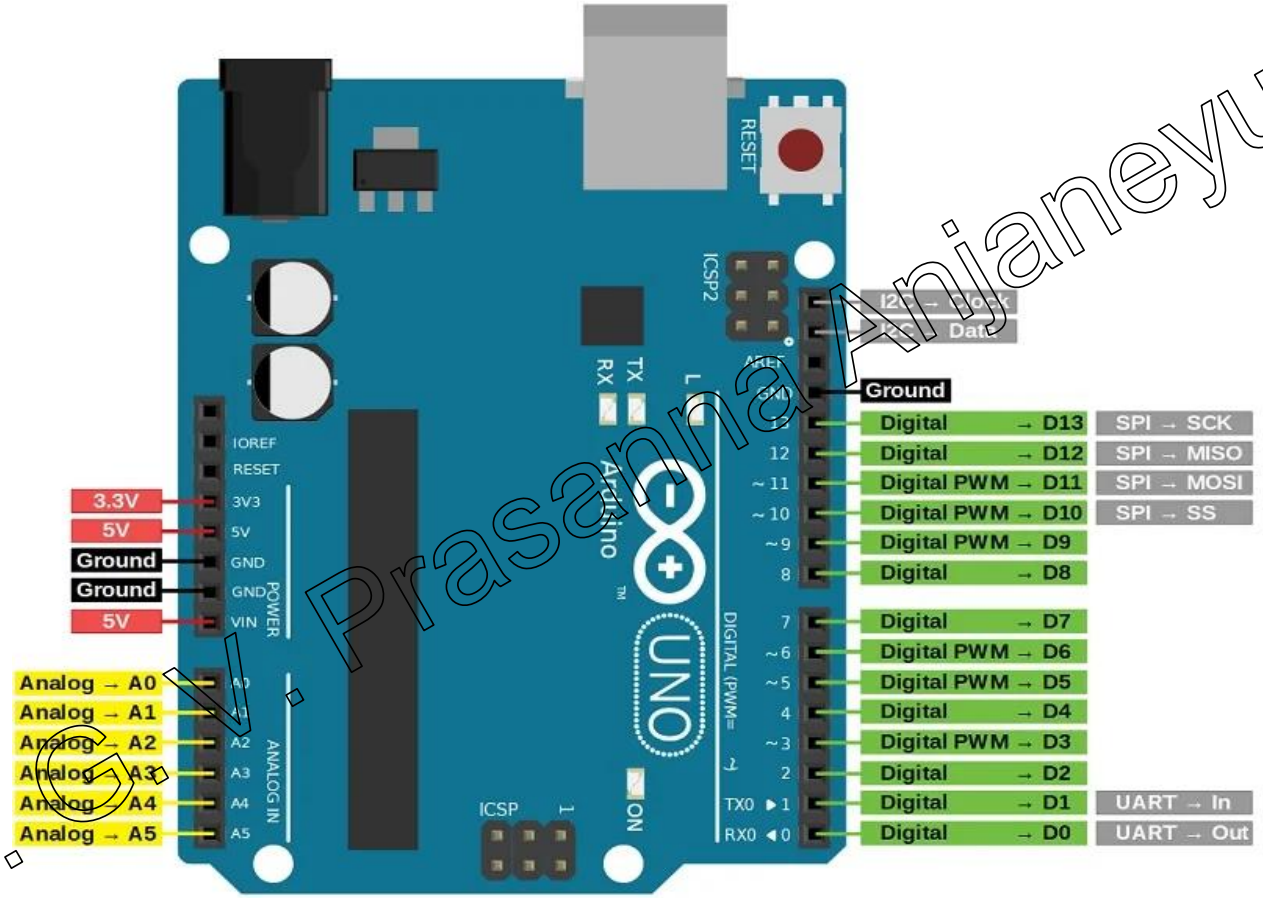
# LCD Interfacing with ARDUINO

Dr. G. V. Prasanna Anjaneyulu

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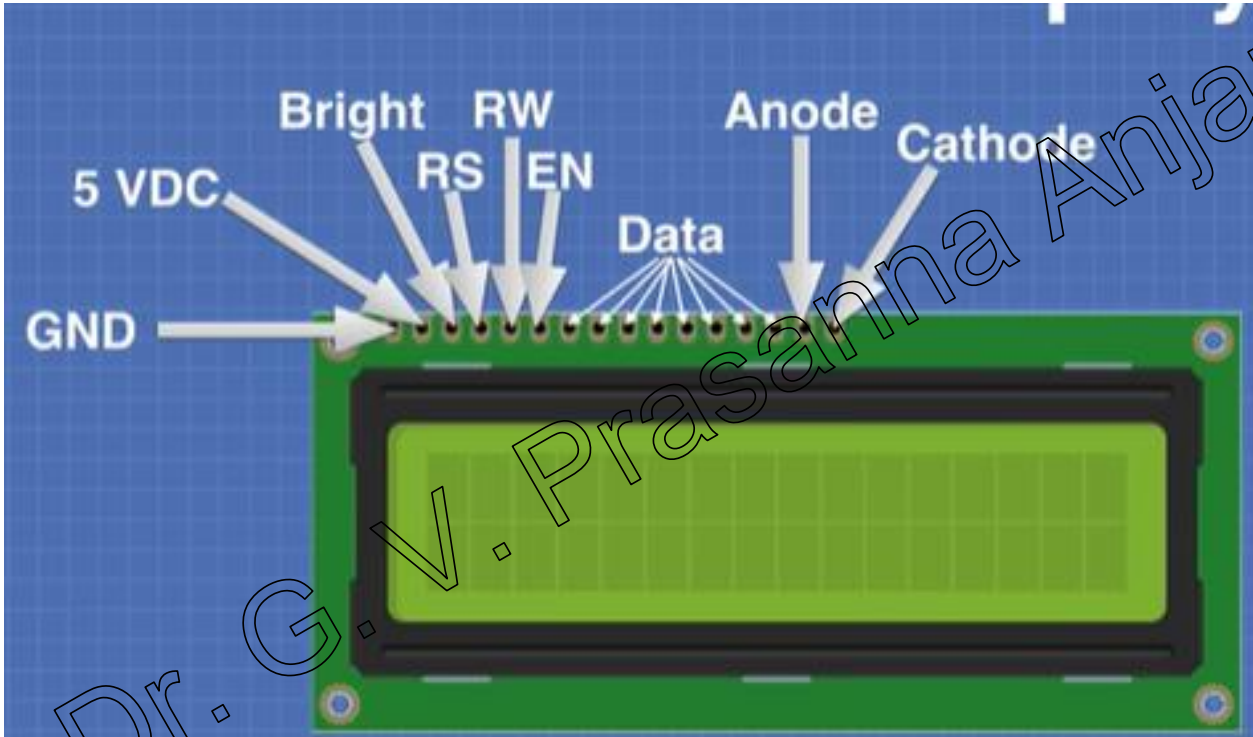
# LCD1602 Display




| | |
|---|---|
| 1 | GND |
| 2 | 5 VDC |
| 3 | Bright |
| 4 | RS |
| 5 | RW |
| 6 | EN |
| 7 | D0 |
| 8 | D1 |
| 9 | D2 |
| 10 | D3 |
| 11 | D4 |
| 12 | D5 |
| 13 | D6 |
| 14 | D7 |
| 15 | Anode |
| 16 | Cathode |

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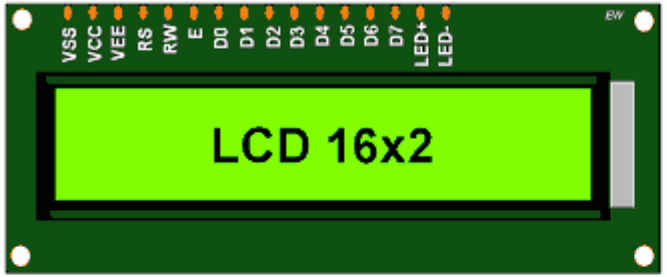


| No. | PIN | Function |
|---|---|---|
| 1 | VSS | Ground |
| 2 | VCC | +5 Volt |
| 3 | VEE | Contrast control<br>0 Volt: High contrast. |

| No. | PIN | Function |
|---|---|---|
| 4 | RS | Register Select<br>0: Commannd Reg.<br>1: Data Reg. |
| 5 | RW | Read / write<br>0: Write<br>1: Read |
| 6 | E | Enable<br>H-L pulse |
| 7-14 | D0 - D7 | Data Pins<br>D7: Busy Flag Pin |
| 15 | LED+ | +5 Volt |
| 16 | LED- | Ground |

EW

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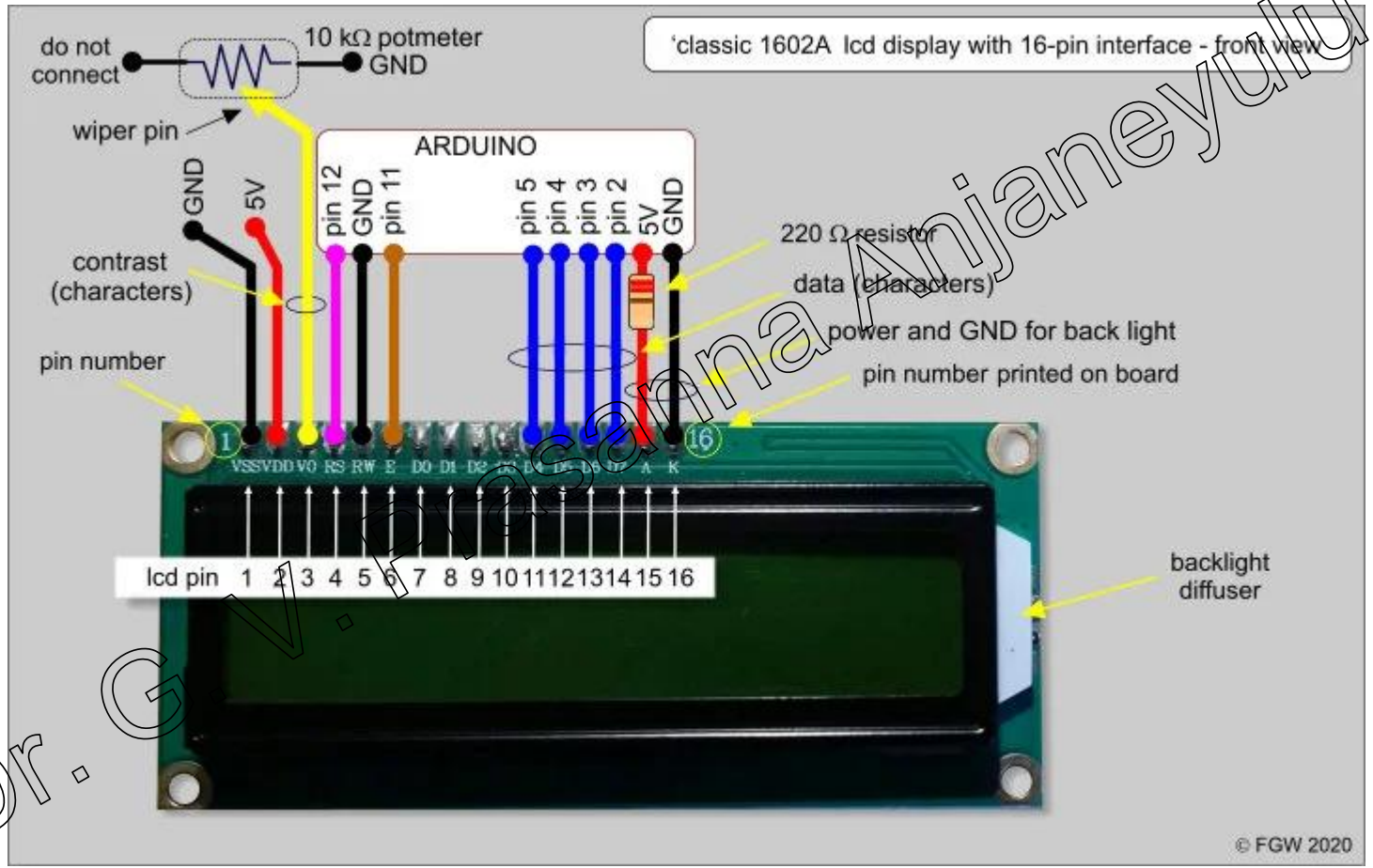


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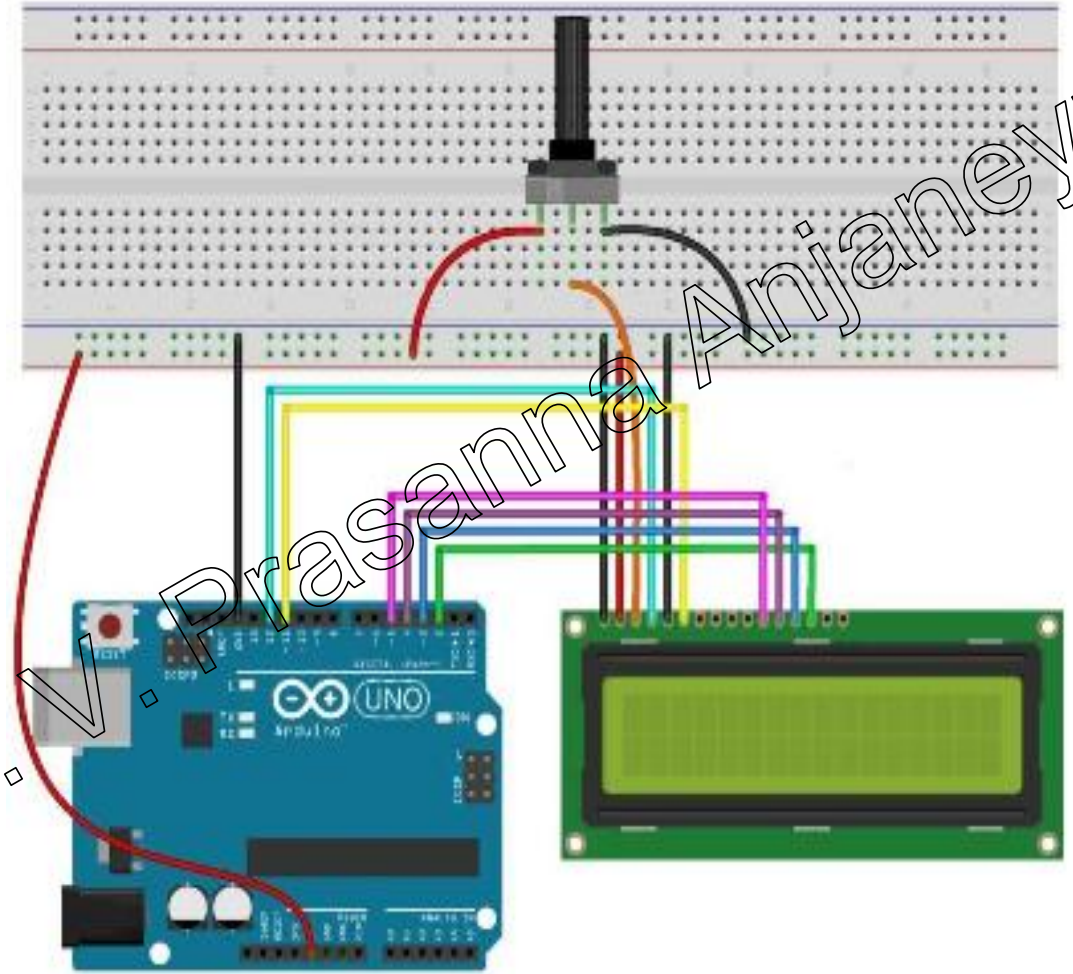


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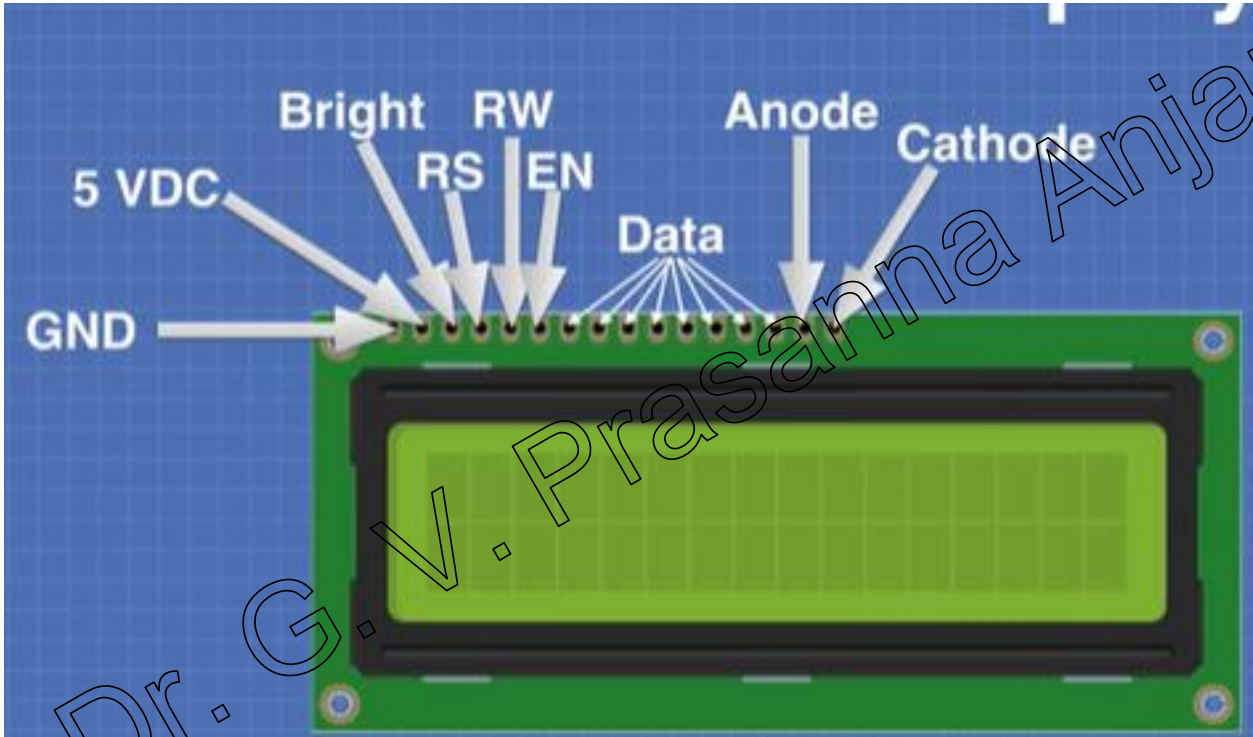
# LCD1602 Display

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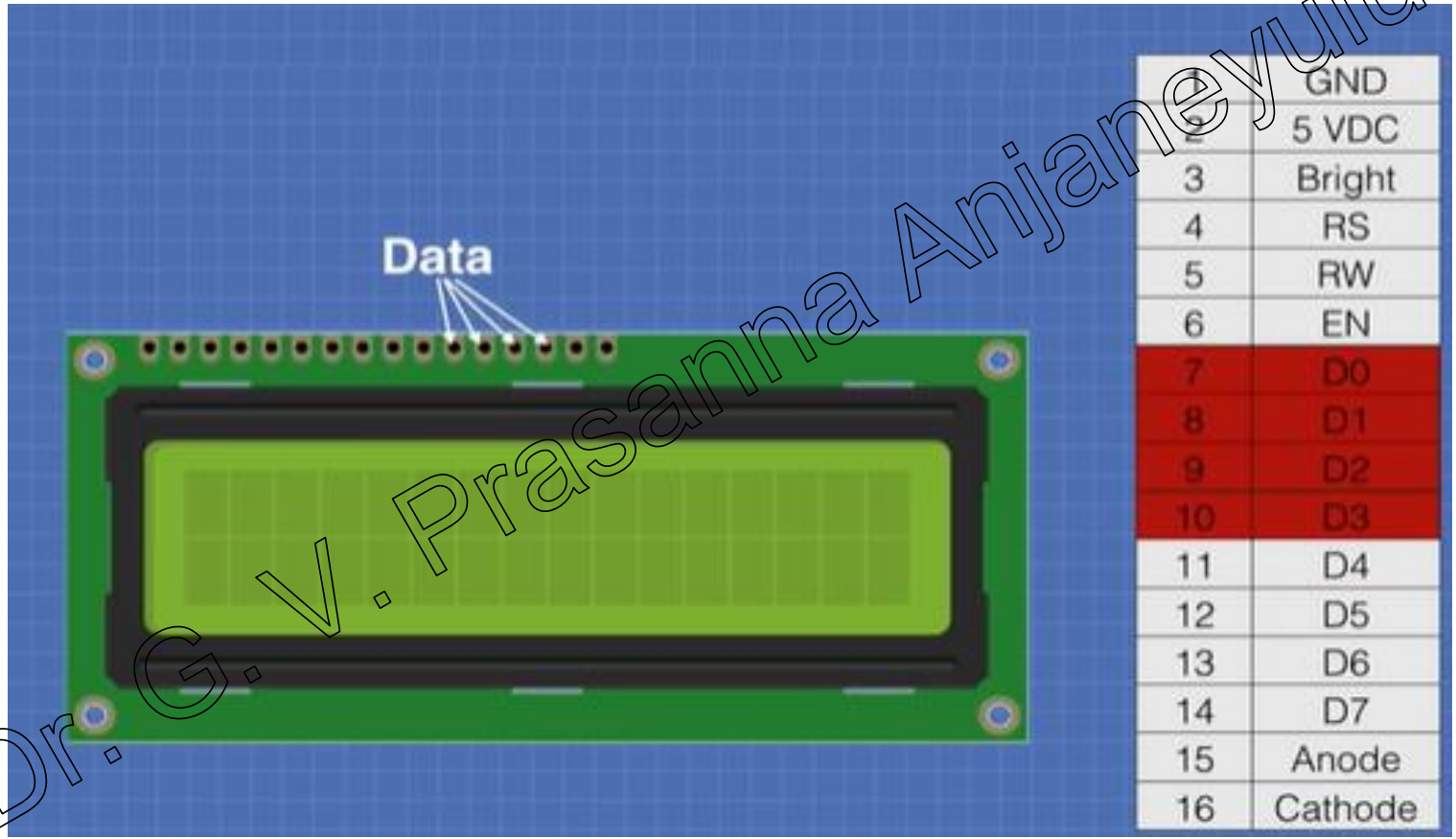
For Half-Byte data transfer D4,D5,D6,D7 pins are used (D0,D1,D2,D3 are not used)

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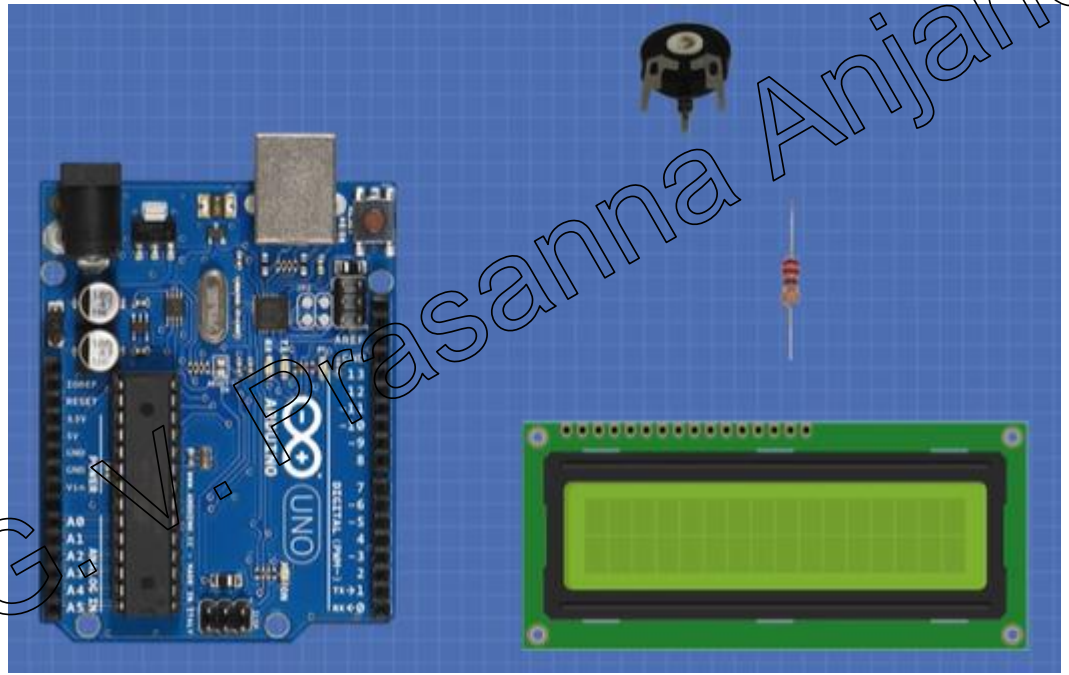
# Components

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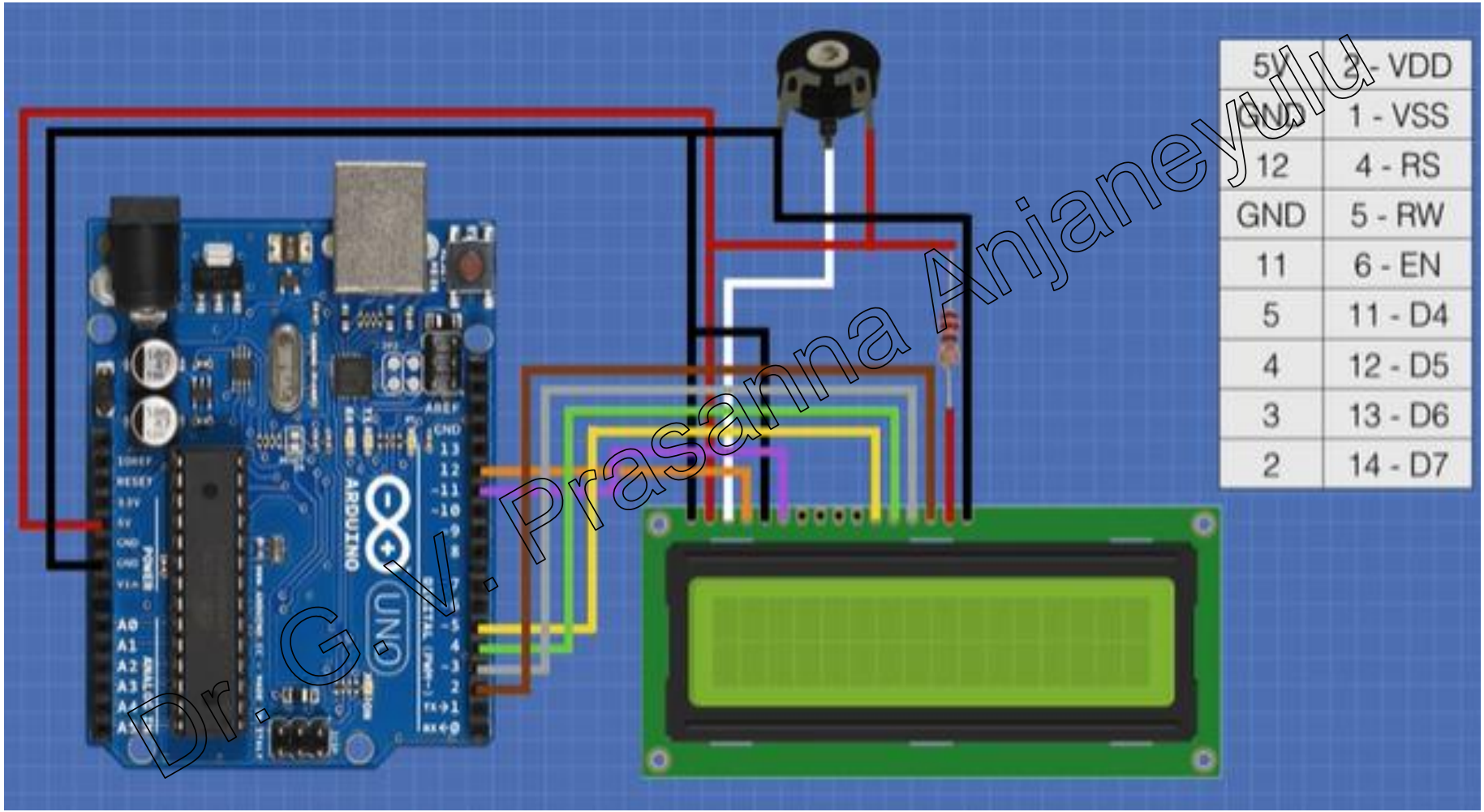
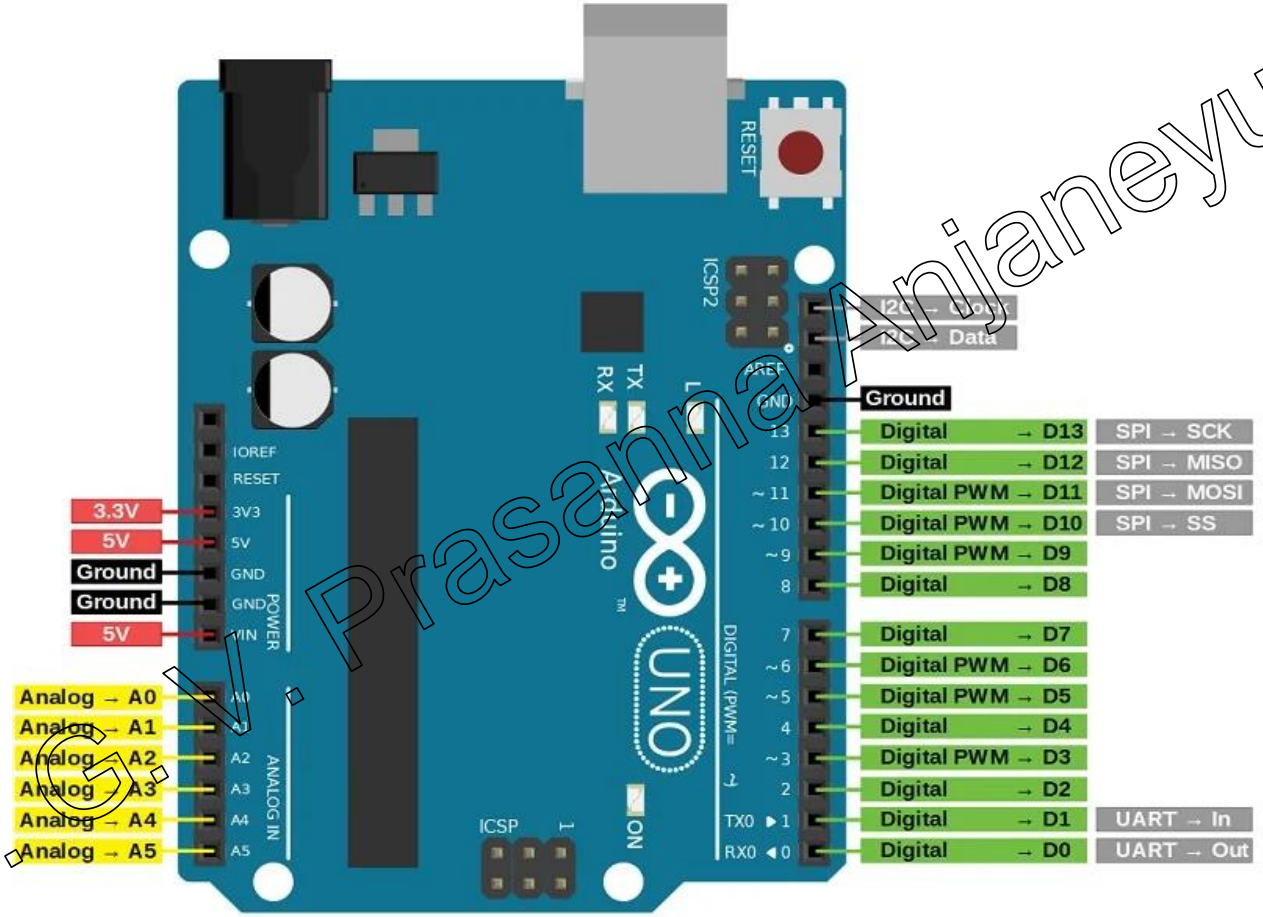



LCD_Interfacing_by Dr. GVP

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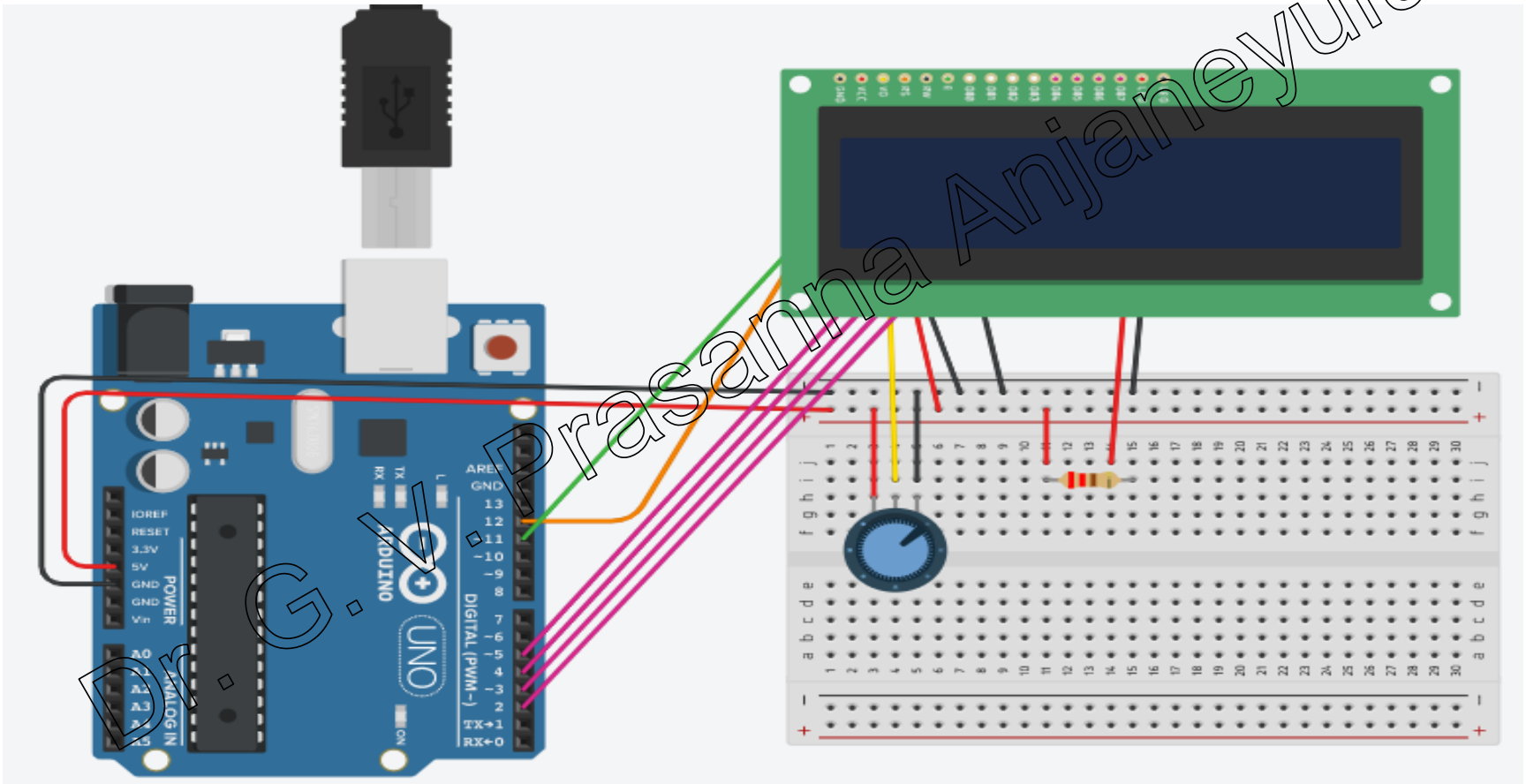
# Implementation



**Q) WAP to print Hello World! In 1st row and **This is LCD** in 2nd row from 0th column**

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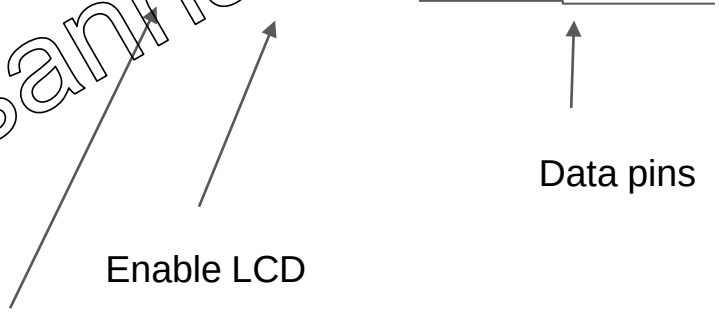
# LiquidCrystal lcd(12,11,5,4,3,2);

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# Program

```
//LCD Interfacing with ARDUINO
#include<LiquidCrystal.h>
LiquidCrystal lcd(12,11,5,4,3,2); //RS,E,5,4,3,2
void setup()
{
 lcd.clear();
 lcd.begin(16,2);
 lcd.setCursor(0,0);
 lcd.print("Hello World!");
 lcd.setCursor(0,1);
 lcd.print("**This is LCD**");
}

void loop()
{

}
```

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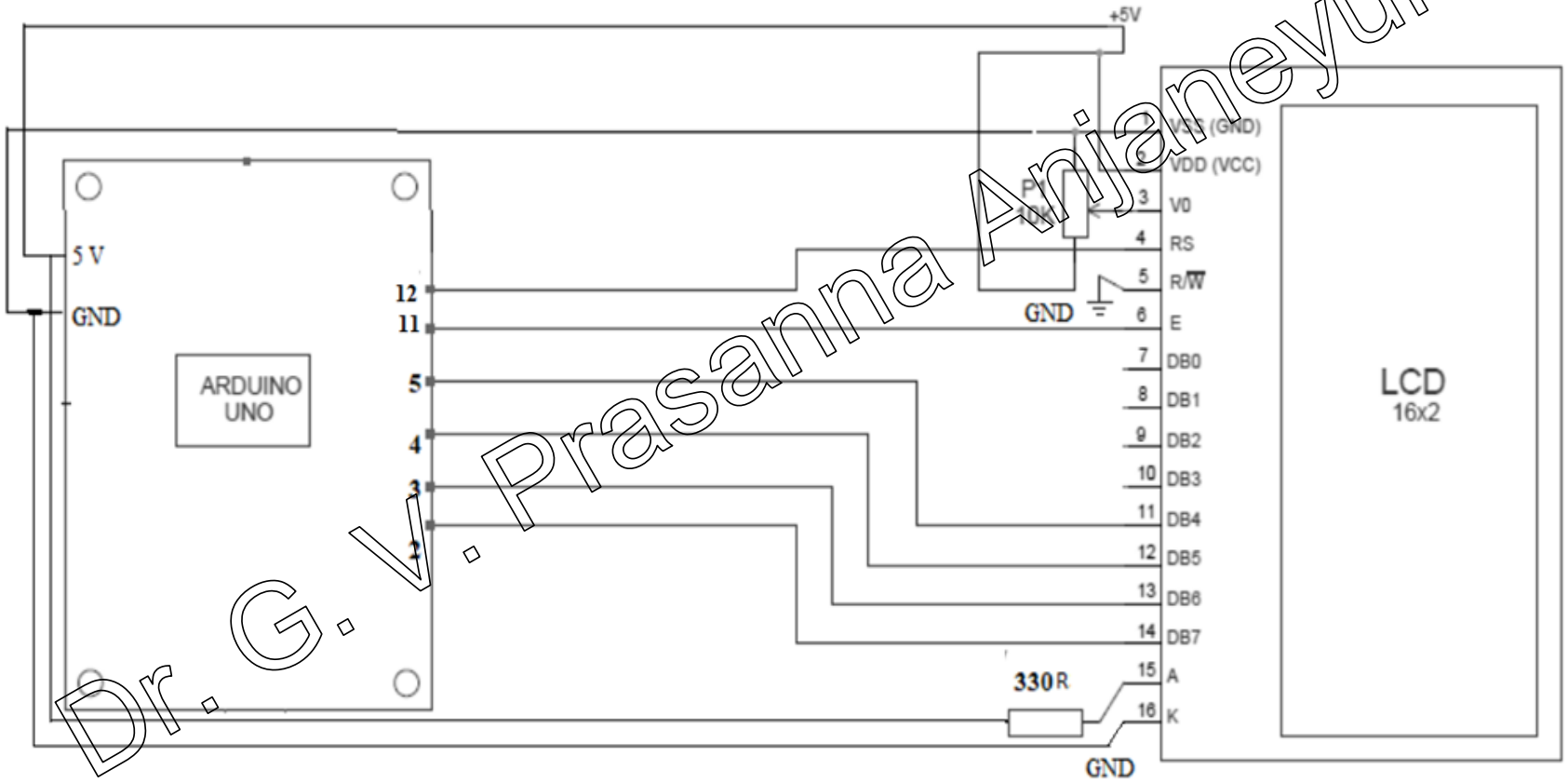
# Circuit Diagram

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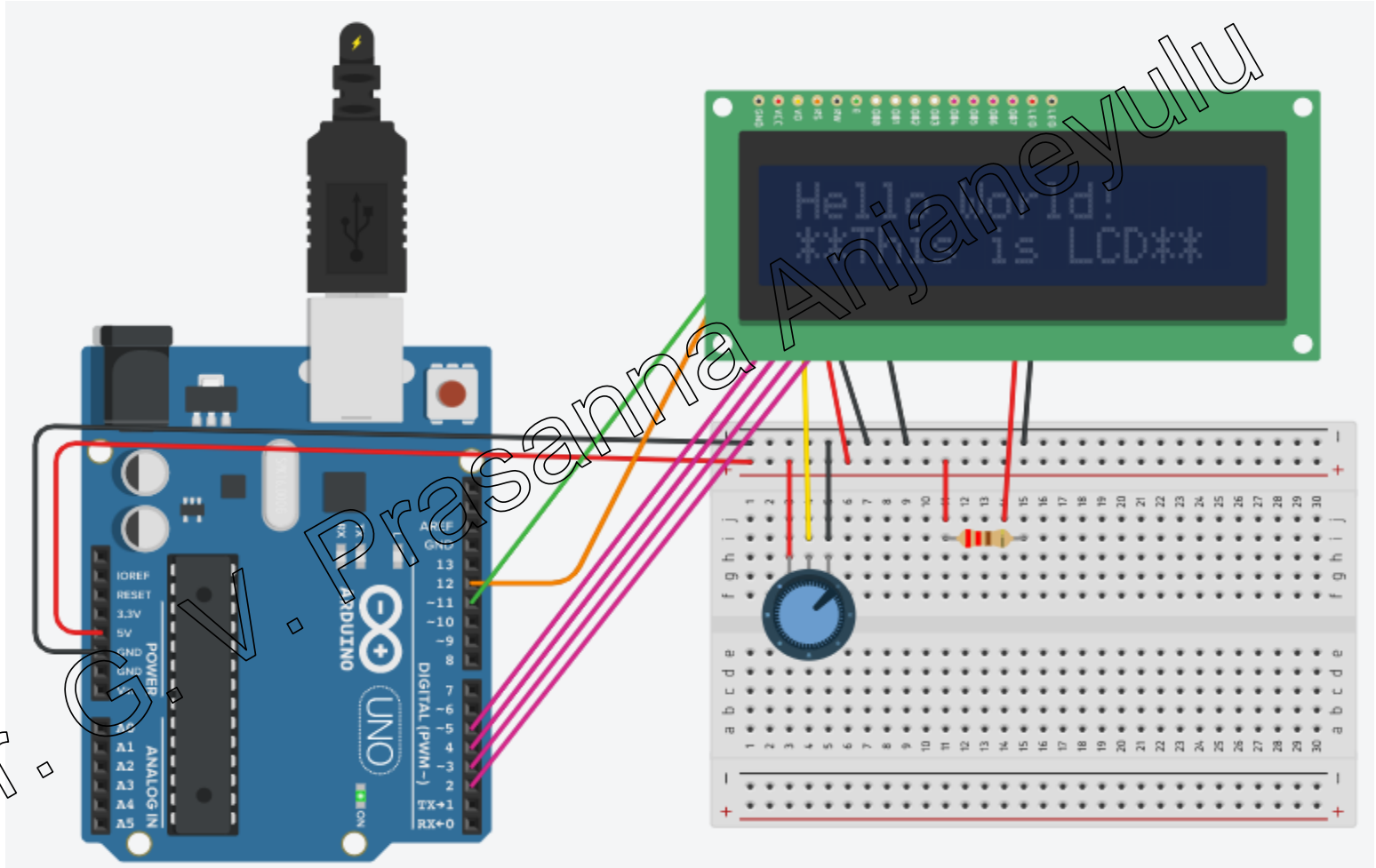
# Result

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# How to use 16x2 LCD with Arduino

**Other LCD'S** 8×1, 8×2, 10×2, 16×1, 16x4, 20x4 etc.

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