LCD1602

Overview

This is an experiment on how to use LCD1602, the next lesson will do a temperature and humidity monitoring experiment.

Specification

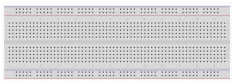
Please view LCD1602-datasheet.pdf.

Path: \Public_materials\Datasheet\LCD1602-datasheet.pdf

Pin definition

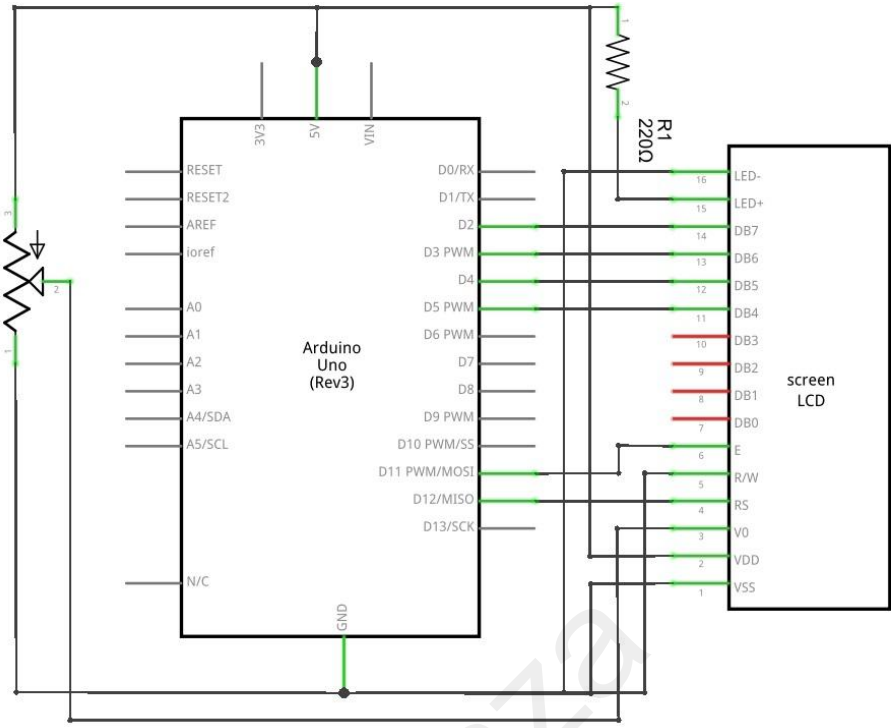
LCD1602	Arduino
VSS	->GND
VDD	->+5V
VO	->10K Potentiometer
RS	->D12
RW	->GND
E	->D11
D0	->null
D1	->null
D2	->null
D3	->null
D4	->D5
D5	->D4
D6	->D3
D7	->D2
A	->220/330Ω
K	->GND

Hardware required

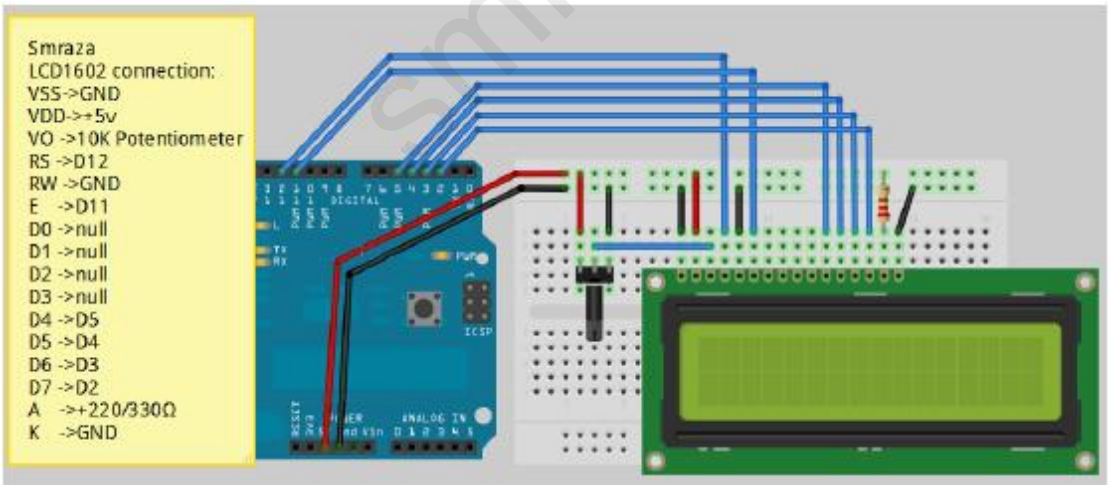
Material diagram	Material name	Number
	LCD1602	1
	220/330Ω resistor	1
	10KΩ Potentiometer	1
	USB Cable	1
	UNO R3	1
	Breadboard	1
	Jumper wires	Several

Connection

Schematic



Connection diagram



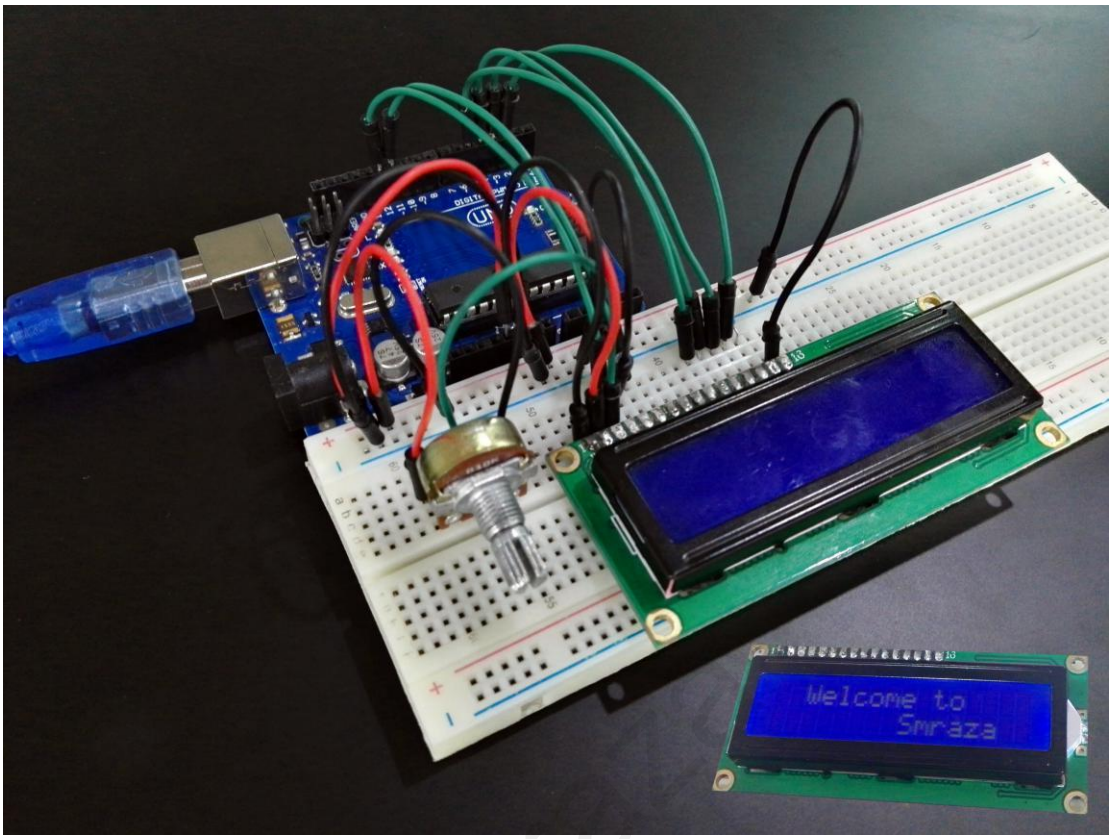
Note： The middle pin of the potentiometer is connected to the LCD1602 port VO.

Sample code

Note: sample code under the **Sample code** folder

```
// initialize the library with the numbers of the interface pins
#include <LiquidCrystal.h>
LiquidCrystal lcd(12, 11, 5, 4, 3, 2);
void setup()
{
    // set up the LCD's number of columns and rows:
    lcd.begin(16,2);
    // Print a message to the LCD.
    lcd.print(" Welcome to ");
    lcd.setCursor(0,1); //Display position
    lcd.print("        Smraza");
}
void loop()
{
    // Turn off the display:
    lcd.noDisplay();
    delay(500);
    // Turn on the display:
    lcd.display();
    delay(500);
}
/*
NOTE:
If the LCD does not display or brightness is not enough, please adjust the
potentiometer.
*/
```

Example picture



Language reference

Tips：click on the following name to jump to the web page.
If you fail to open, use the Adobe reader to open this document.
lcd.begin()
lcd.print()
lcd.setCursor()

Application effect

You will see the LCD display string, while the LCD backlight every 500ms lit once.

****
* About Smraza:
* We are a leading manufacturer of electronic components for Arduino and Raspberry Pi.
* Official website: http://www.smraza.com/
* We have a professional engineering team dedicated to providing tutorials and support to help you get started.
* If you have any technical questions, please feel free to contact our support staff via email at support@smraza.com
* We truly hope you enjoy the product, for more great products please visit our
Amazon US store: http://www.amazon.com/shops/smraza
Amazon CA store: https://www.amazon.ca/shops/AMIHZKLK542FQ
Amazon UK store: http://www.amazon.co.uk/shops/AVEAJYX3AHG8Q
Amazon DE store: http://www.amazon.de/shops/AVEAJYX3AHG8Q
Amazon FR store: http://www.amazon.fr/shops/AVEAJYX3AHG8Q
Amazon IT store: http://www.amazon.it/shops/AVEAJYX3AHG8Q
Amazon ES store: https://www.amazon.es/shops/AVEAJYX3AHG8Q
****