LCD display

DESCRIPTION:

The LCD-1602 is a low power 16 character by 2 line liquid crystal display, with serial interface.

Specification：

- Construction : COB (Chip-on-Board)
- Display Format : 16x2 Characters
- Display Type : STN, Transflective, Positive, Y-G
- Controller : SPLC780D1 or equivalent controller
- Interface : 8-bit parallel interface
- Backlight : Yellow-green\bottom lights
- Viewing Direction : 6 O'clock
- Driving Scheme : 1/16 Duty Cycle, 1/5 Bias
- Power Supply Voltage : 5.0 V
- V_{LCD} Adjustable For Best Contrast : 5.0 V (VOP.)
- Operation temperature : -10℃ to +60℃
- Storage temperature : -20℃ to +70℃

PIN CONFIGURATION:

- VSS : Ground connection
- VDD: Positive supply (3.3 V or 5V depending on module)
- VO: Contrast adjustment (0V-VDD)
- RS: Register selection H: Data register (for read and write)
  L: Instruction code (for write)

- RW: H: Read (Host module) L: write(Host Module)
- E: Read/write enable signal. H: Read data is enabled by a high level.
  H→L: Write data is latched on the falling edge.
- D0~D7: Data bit 0~7.
- A (LED +): Supply voltage for LED. “A”(anode)or “+” of LED backlight.
- K(LED -): Supply voltage for LED. “K”(cathode or cathode for German and original) Greek spelling) or “-” of LED backlight.

Quick reference for pin functions (front &back photos)

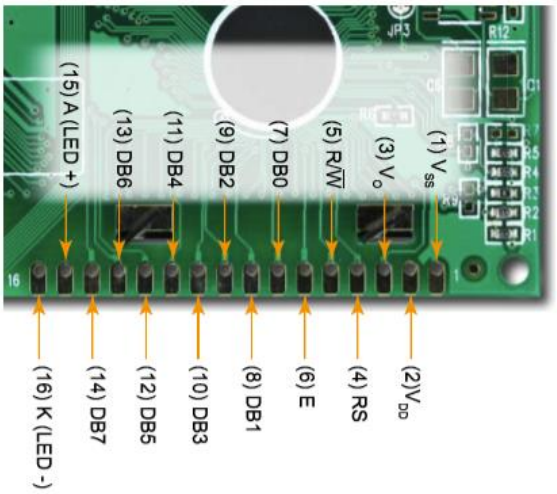


Figure 3. Back View of Pins (Labeled)

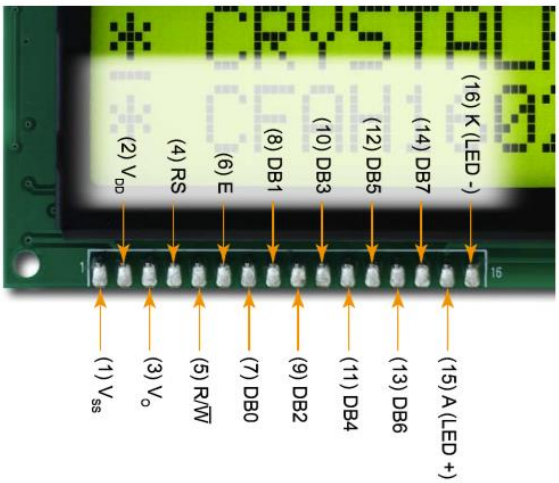
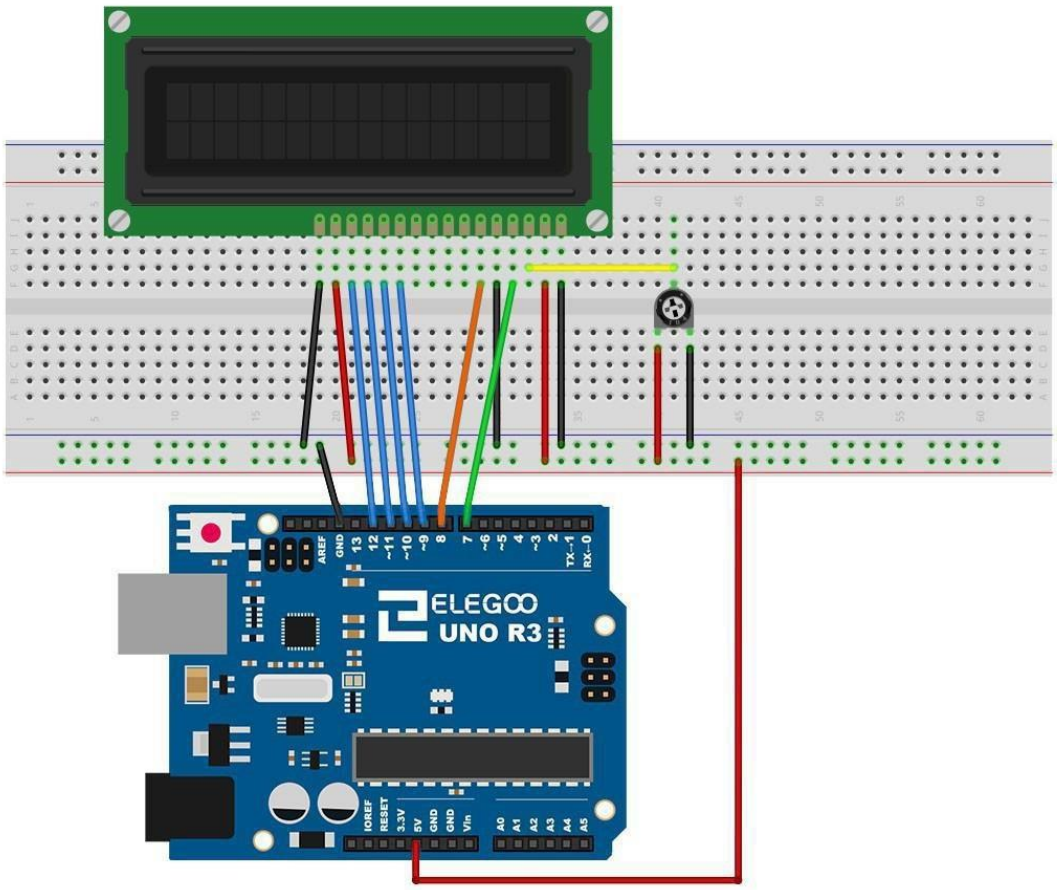


Figure 4. Front View of Pins (Labeled)

Example:



Code:

Before you can run this, make sure that you have installed the < Liquid Crystal > library or re-install it, if necessary. Otherwise, your code won't work.

Upload the code to your Arduino board and you should see the message 'hello, world' displayed, followed by a number that counts up from zero.

The first thing of note in the sketch is the line:

#include <LiquidCrystal.h>

This tells Arduino that we wish to use the Liquid Crystal library.

Next we have the line that we had to modify. This defines which pins of

the Arduino are to be connected to which pins of the display.

LiquidCrystal lcd(7, 8, 9, 10, 11, 12);

After uploading this code, make sure the backlight is lit up, and adjust the potentiometer all the way around until you see the text message

In the 'setup' function, we have two commands: lcd.begin(16, 2);

lcd.print("Hello, World!");

The first tells the Liquid Crystal library how many columns and rows the display has. The second line displays the message that we see on the first line of the screen.

In the 'loop' function, we aso have two commands: lcd.setCursor (0, 1);

lcd.print(millis()/1000);