

Project 12 1602 LCD Display



1. Description

This display module, with I2C communication module, shows contents(blue background and white letters) in 2 lines with 16 characters per line. And a blue potentiometer is on the back of LCD display for adjusting the backlight.

It is attached to I2C interface of MCU, and its communication default address is 0x27. The original 1602 LCD can run with 7 IO ports, but ours is built with IIC/I2C interface, saving 5 IO ports. Alternatively, the module comes with 4 positioning holes with a diameter of 3mm, which is convenient for you to fix on other devices.

Notice that when the screen gets brighter or darker, the characters will become more or less visible.

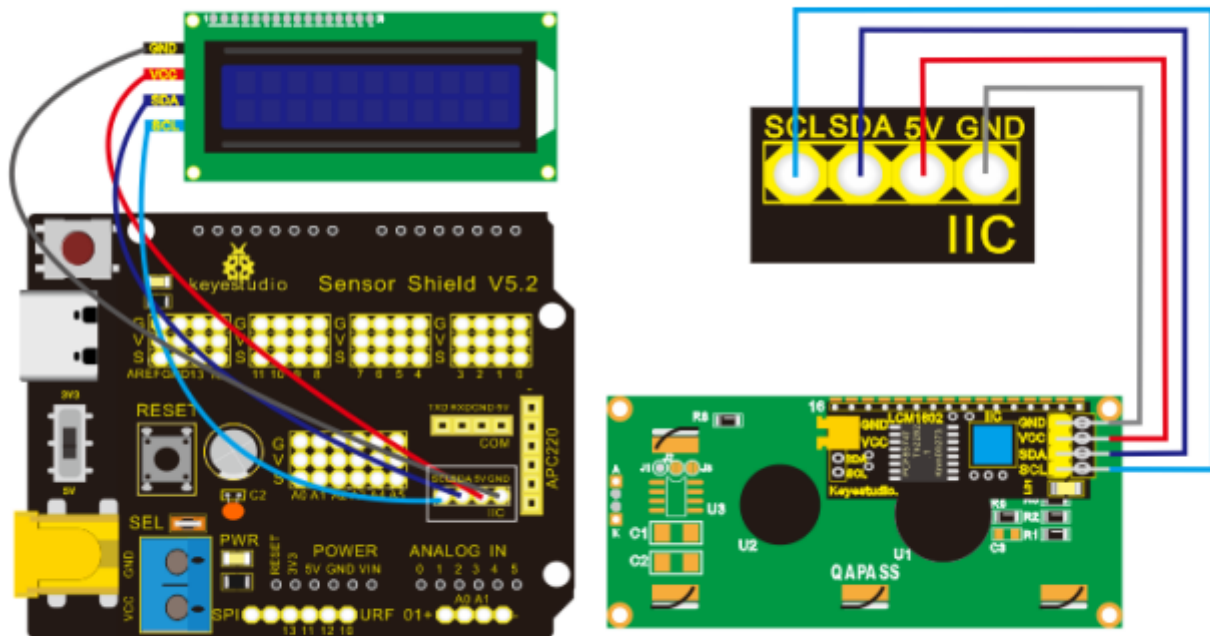
2. Parameters

- I2C address: 0x27
- Backlight (blue, white)
- Power supply voltage: 5V
- Adjustable contrast
- GND: A pin that connects to ground
- VCC: A pin that connects to a +5V power supply
- SDA: A pin that connects to analog port A4 for IIC communication
- SCL: A pin that connects to analog port A5 for IIC communication

3. Needed Components

PLUS control board*1	Expansion board*1	1602 LCD display*1	USB cable*1	4Pin F-F Dupont wire*1
				

4. Wiring Diagram



GND is linked with GND (-) of IIC communication, VCC is connected to 5V (+) , SDA to SDA, SCL to SCL

5. Test Code



5. Test Result

After hooking up components and uploading sample code, the 1602 LCD will print "Hello, world!, keystudio!", and the backlight can be adjusted through a potentiometer.



Note: When the display doesn't show characters, you can adjust the potentiometer behind the 1602LCD to make the it show corresponding character string.