



## International Components Distributor A MOBICON COMPANY

### interface

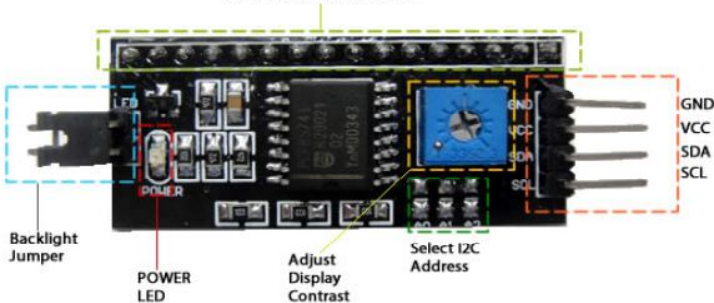
In this illustration we will going to wire the I2C or 2 wire connection in our Arduino Board with the 16x2 Liquid Crystal Display, you can also use the 20x4 LCD, but on this demonstration we will going to wire the 16x2 LCD.

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### Diagram of I2C Module:

At the left side of the module we have 4 pins, and two are voltage and ground, and the other two are the I2c (SDA/ and SCL). The board has a tripper pot to adjust the contrast of the LCD, and the jumper located at the opposite side allows the back-light controlled by the program or remain off.

16 Pins Connection to LCD

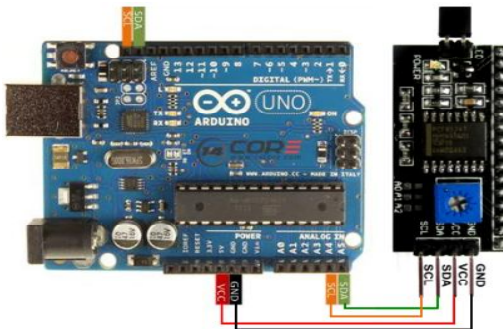


### I2C Address:

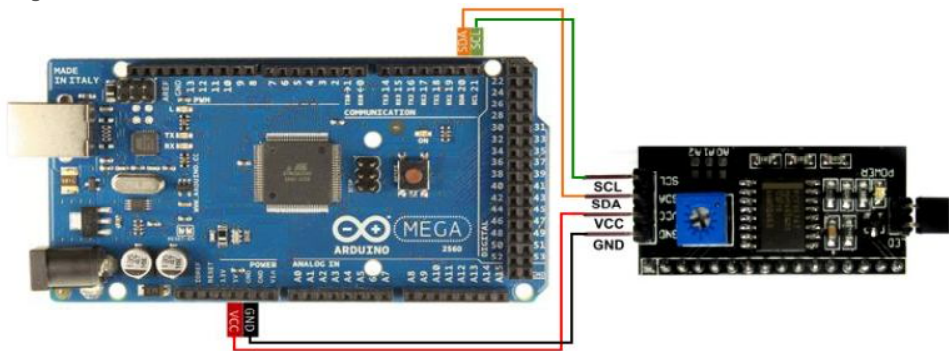
By default the module is configured with the address 0x27, but you can change this using the address pins A0, A1 and A2 located at I2C module board, see the table below.

I2C Address:	A0	A1	A2
0x20	0	0	0
0x21	1	0	0
0x22	0	1	0
0x23	1	1	0

### Wiring I2C Module to Arduino UNO R3 Board:



## Wiring I2C Module to Arduino MEGA2560 Board:



The I2C module has 16 pins that can be directly connected to the display, or you can test the connection in the breadboard, if your using MEGA2560 use the pin 20(SDA) and 21 for (SCL)

To control the I2C module you need to include the LiquidCrystal\_i2C library, can be download below ->. Unzip the zip file and rename the folder to LiquidCrystal to LiquidCrystalI2C, copying it to the folder libraries into the Arduino IDE. Rename the folder to avoid conflicts with LiquidCrystal libraries that is already built into the Arduino IDE.

<https://arduino-info.wikispaces.com/LCD-Blue-I2C>

The commands to work with the display control are almost similar to the LiquidCrystal library we use normally with commands such as lcd.begin(), lcd.print() and lcd.setCursor(). The command lcd.setBacklight() allows you to adjust or activate the backlight of the LCD.

```
/*  
LCD 16x2 Display Driving Example  
*/  
#include <Wire.h> // Include Wire.h to control I2C  
#include <LiquidCrystal_I2C.h> //Download & include the code library can be downloaded above" NewliquidCrystal_1.3.4.zip"  
  
LiquidCrystal_I2C lcd(0x27,2,1,0,4,5,6,7,3, POSITIVE); // Initialize LCD Display at address 0x27  
void setup()  
{  
  lcd.begin (16,2);  
}  
  
void loop()  
{  
  lcd.setBacklight(HIGH); //Set Back light turn On  
  lcd.setCursor(0,0); // Move cursor to 0  
  lcd.print("We are 14Core");  
  lcd.setCursor(0,1);  
  lcd.print("Ideas Comes Reality");  
  delay(1000);  
  lcd.setBacklight(LOW); // Set backlight to off  
  delay(1000);  
}
```