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/* YourDuino.com Example Software Sketch
16 character 2 line I2C Display
Backpack Interface labelled "A0 A1 A2" at lower right.
..and
Backpack Interface labelled "YwRobot Arduino LCM1602 IIC V1"
MOST use address 0x27, a FEW use 0x3F
terry@yourduino.com */

/*-----( Import needed libraries )-----*/
#include <Wire.h> // Comes with Arduino IDE
// Get the LCD I2C Library here:
// https://bitbucket.org/fmalpartida/new-liquidcrystal/downloads
// Move any other LCD libraries to another folder or delete them
// See Library "Docs" folder for possible commands etc.
#include <LiquidCrystal_I2C.h>

/*-----( Declare Constants )-----*/
/*-----( Declare objects )-----*/
// set the LCD address to 0x27 for a 16 chars 2 line display
// A FEW use address 0x3F
// Set the pins on the I2C chip used for LCD connections:
//                               addr, en,rw,rs,d4,d5,d6,d7,bl,blpol
//LiquidCrystal_I2C lcd(0x27, 2, 1, 0, 4, 5, 6, 7, 3, POSITIVE); // Set the LCD
I2C address
LiquidCrystal_I2C lcd(0x3F, 2, 1, 0, 4, 5, 6, 7, 3, POSITIVE); // Set the LCD
I2C address

/*-----( Declare Variables )-----*/
//NONE

void setup() /*-----( SETUP: RUNS ONCE )-----*/
{
  Serial.begin(9600); // Used to type in characters

  lcd.begin(20,4); // initialize the lcd for 20 chars 4 lines, turn on
backlight

// ----- Quick 3 blinks of backlight -----
for(int i = 0; i< 3; i++)
{
  lcd.backlight();
  delay(250);
  lcd.noBacklight();
  delay(250);
}
lcd.backlight(); // finish with backlight on

//----- Write characters on the display -----
// NOTE: Cursor Position: (CHAR, LINE) start at 0
lcd.setCursor(0,0); //Start at character 4 on line 0
lcd.print("Hello, world!");
delay(1000);
lcd.setCursor(0,1);
lcd.print("HI!YourDuino.com");
delay(8000);

// Wait and then tell user they can start the Serial Monitor and type in
characters to
// Display. (Set Serial Monitor option to "No Line Ending")
lcd.clear();
lcd.setCursor(0,0); //Start at character 0 on line 0
lcd.print("Use Serial Mon");
lcd.setCursor(0,1);

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lcd.print("Type to display");

}/*--(end setup )---*/

void loop() /*----( LOOP: RUNS CONSTANTLY )----*/
{
  {
    // when characters arrive over the serial port...
    if (Serial.available()) {
      // wait a bit for the entire message to arrive
      delay(100);
      // clear the screen
      lcd.clear();
      // read all the available characters
      while (Serial.available() > 0) {
        // display each character to the LCD
        lcd.write(Serial.read());
      }
    }
  }
}/* --(end main loop )-- */

/* ( THE END ) */
```