

Scroll Text on LCD Display

<http://arduino.cc/en/Tutorial/LiquidCrystalTextDirection>

The Liquid Crystal Library allows you to control LCD displays that are compatible with the Hitachi HD44780 driver. There are many of them out there, and you can usually tell them by the 16-pin interface. This example sketch shows how to use the `leftToRight()` and `rightToLeft()` methods. These methods control which way text flows from the cursor. `rightToLeft()` causes text to flow to the left from the cursor, as if the display is right-justified. `leftToRight()` causes text to flow to the right from the cursor, as if the display is left-justified.

This sketch prints a through l right to left, then m through r left to right, then s through z right to left again.

HARDWARE REQUIRED

Arduino Board
LCD Screen (compatible with Hitachi HD44780 driver)
pin headers to solder to the LCD display pins
10k Potentiometer
breadboard
hook-up wire

CIRCUIT

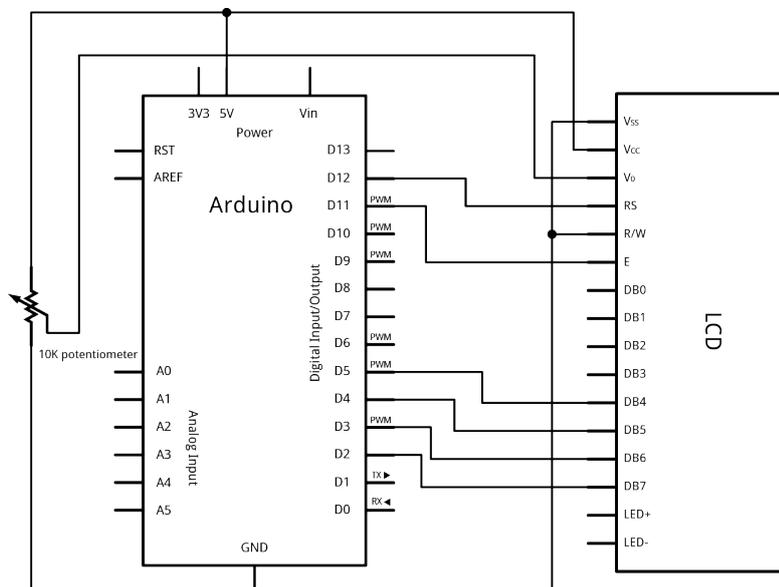
Before wiring the LCD screen to your Arduino we suggest to solder a pin header strip to the 14 (or 16) pin count connector of the LCD screen, as you can see in the image above.

To wire your LCD screen to your Arduino, connect the following pins:

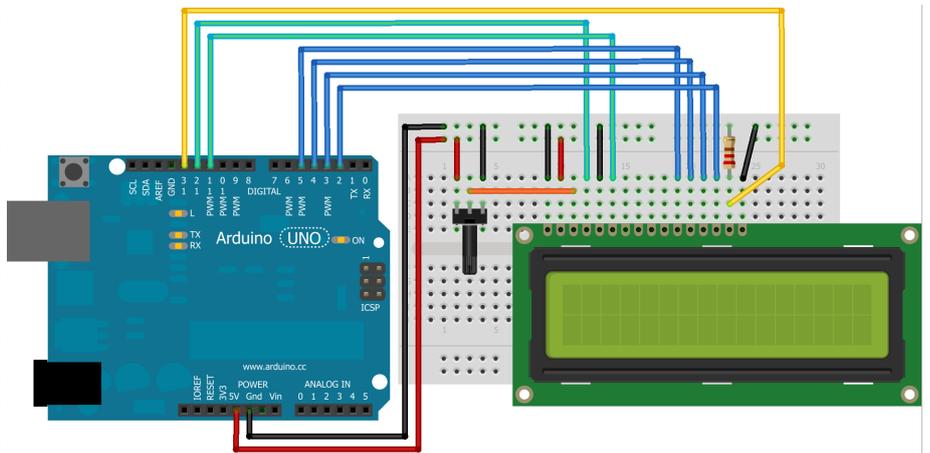
- LCD RS pin to digital pin 12
- LCD Enable pin to digital pin 11
- LCD D4 pin to digital pin 5
- LCD D5 pin to digital pin 4
- LCD D6 pin to digital pin 3
- LCD D7 pin to digital pin 2

Additionally, wire a 10K pot to +5V and GND, with it's wiper (output) to LCD screens VO pin (pin3).

SCHEMATIC



IMAGE



Made with  Fritzing.org

CODE

```
/*  
LiquidCrystal Library - TextDirection  
  
Demonstrates the use a 16x2 LCD display. The  
LiquidCrystal  
library works with all LCD displays that are  
compatible with the  
Hitachi HD44780 driver. There are many of  
them out there, and you  
can usually tell them by the 16-pin interface.  
  
This sketch demonstrates how to use  
leftToRight() and rightToLeft()  
to move the cursor.  
  
The circuit:  
* LCD RS pin to digital pin 12  
* LCD Enable pin to digital pin 11  
* LCD D4 pin to digital pin 5  
* LCD D5 pin to digital pin 4  
* LCD D6 pin to digital pin 3  
* LCD D7 pin to digital pin 2  
* LCD R/W pin to ground  
* 10K resistor:  
* ends to +5V and ground  
* wiper to LCD VO pin (pin 3)  
  
Library originally added 18 Apr 2008  
by David A. Mellis  
library modified 5 Jul 2009  
by Limor Fried (http://www.ladyada.net)  
example added 9 Jul 2009  
by Tom Igoe  
modified 22 Nov 2010  
by Tom Igoe  
  
This example code is in the public domain.  
  
http://arduino.cc/en/Tutorial/  
LiquidCrystalTextDirection  
*/  
  
// include the library code:  
#include <LiquidCrystal.h>  
  
// initialize the library with the numbers of the interface pins  
LiquidCrystal lcd(12, 11, 5, 4, 3, 2);  
  
int thisChar = 'a';  
  
void setup() {  
  // set up the LCD's number of columns and rows:  
  lcd.begin(16, 2);  
  // turn on the cursor:  
  lcd.cursor();  
}  
  
void loop() {  
  // reverse directions at 'm':  
  if (thisChar == 'm') {  
    // go right for the next letter  
    lcd.rightToLeft();  
  }  
  // reverse again at 's':  
  if (thisChar == 's') {  
    // go left for the next letter  
    lcd.leftToRight();  
  }  
  // reset at 'z':  
  if (thisChar > 'z') {  
    // go to (0,0):  
    lcd.home();  
    // start again at 0  
    thisChar = 'a';  
  }  
  // print the character  
  lcd.write(thisChar);  
  // wait a second:  
  delay(1000);  
  // increment the letter:  
  thisChar++;  
}
```