# Lab 3. LCD Display

**LCD Display()**

The **Liquid Crystal Library (https://www.arduino.cc/en/Reference/LiquidCrystal)** 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 display() and noDisplay() methods to turn on and off the display. The text to be displayed will still be preserved when you use noDisplay() so it's a quick way to blank the display without losing everything on it.

**Hardware Required**

- Arduino or Genuino Board
- LCD Screen (compatible with Hitachi HD44780 driver)
- pin headers to solder to the LCD display pins
- 10k ohm potentiometer
- 220 ohm resistor
- hook-up wires
- breadboard

**Open the link below:**

**LCD Display.pdf (https://slcc.instructure.com/courses/1004604/files/165676963/download?wrap=1)**
**(https://slcc.instructure.com/courses/1004604/files/165676963/download?download_frd=1)**

**LCD DISPLAY Schematic.pdf**
**(https://slcc.instructure.com/courses/1004604/files/165676964/download?wrap=1)**
**(https://slcc.instructure.com/courses/1004604/files/165676964/download?download_frd=1)**

**Program in C using Arduino's IDE:**

**LCD_AVR_4f.ino (https://slcc.instructure.com/courses/1004604/files/165676869/download?wrap=1)**
**(https://slcc.instructure.com/courses/1004604/files/165676869/download?download_frd=1)**

**Program in MIPS using Atmel Studio's IDE:**

**LCDDISPLAY .asm (https://slcc.instructure.com/courses/1004604/files/165676817/download?wrap=1)**
**(https://slcc.instructure.com/courses/1004604/files/165676817/download?download_frd=1)**