

Arduino Bootcamp : Learning Through Projects

Online Weather Station - Using a 1602 LCD Screen to Display Information - Part 1

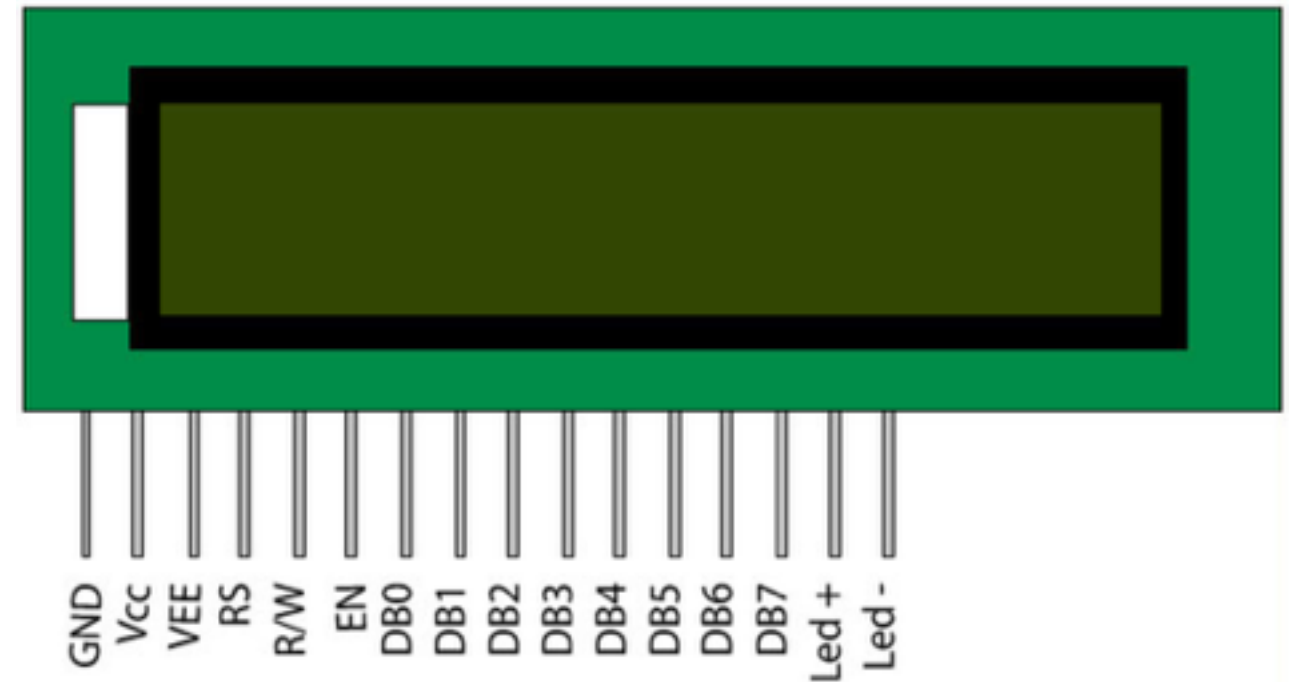
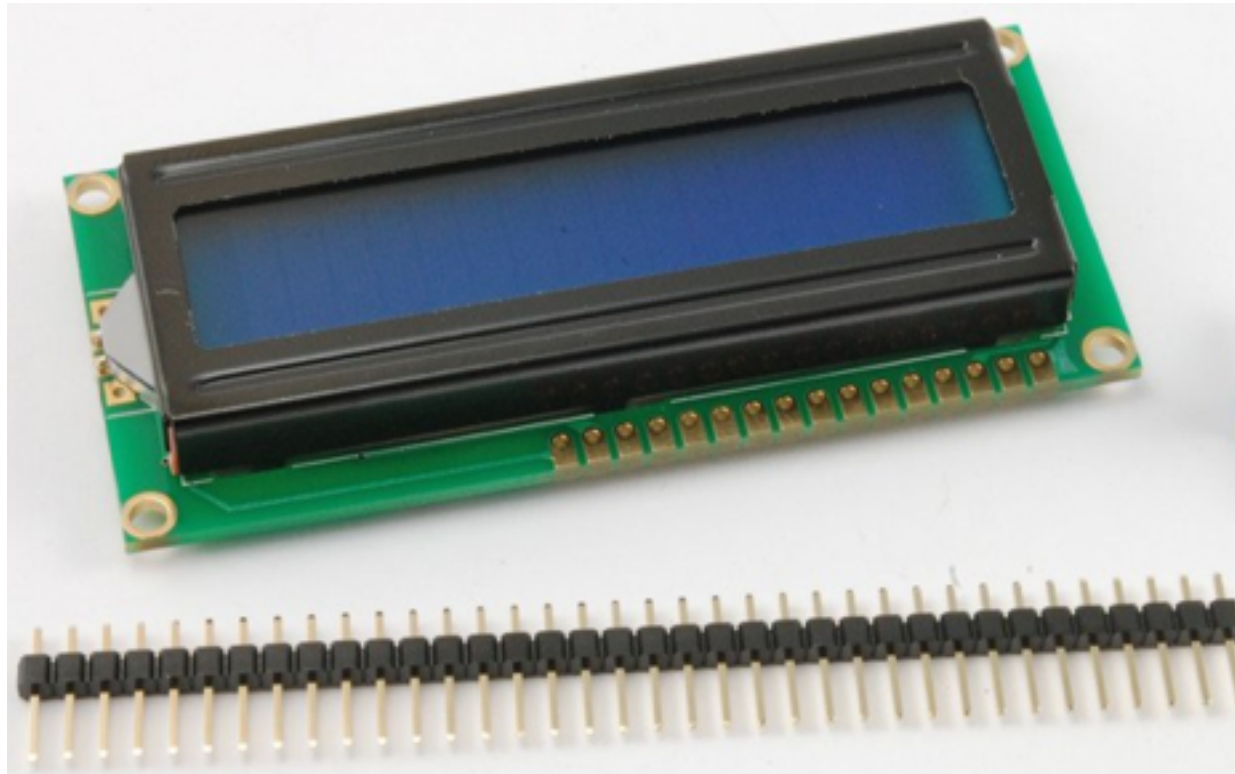
Project Objectives

- In this project you will learn:
 - How to connect an LCD to your Arduino
 - How to communicate with the display in code to show text
 - Using the Liquid Crystal Library

Parts

- Arduino Uno
- USB A-B cable
- Breadboard
- Standard 1602 LCD
- Pin header strip (16) where appropriate
- 10 K ohm potentiometer
- 220 ohm resistor
- Connecting wires

LCD Pinout and Operation

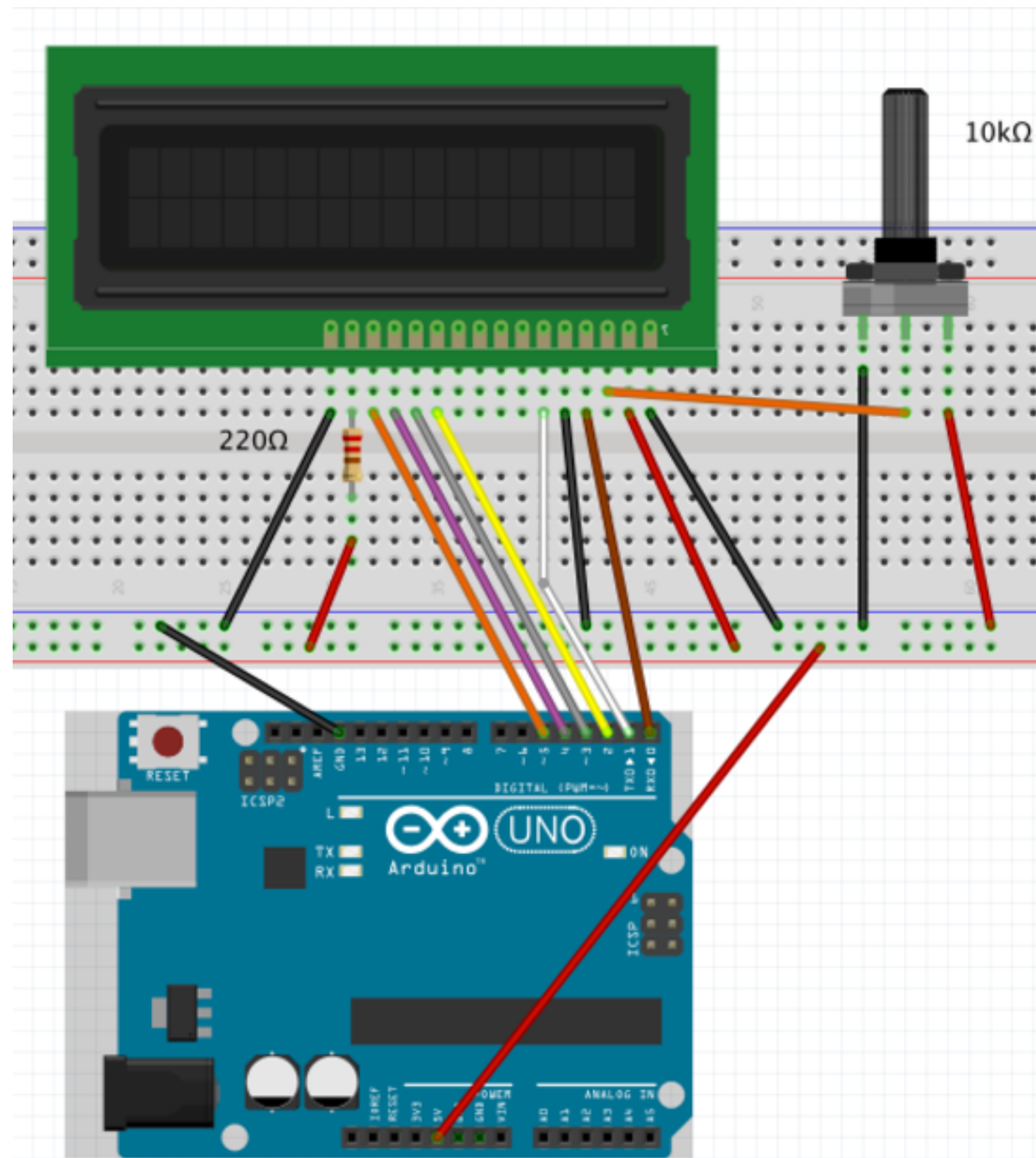


LCD Pinout

LCD	Arduino
1 GND	GND
2 VDD	5V
3 Contrast	Resistor to GND
4 RS	PIN 0
5 R/W	GND
6 Enable	PIN 1
7 DB0	Not connected
8 DB1	Not connected

LCD	Arduino
9 DB2	Not connected
10 DB3	Not connected
11 DB4	PIN 2
12 DB5	PIN 3
13 DB6	PIN 4
14 DB7	PIN 5
15 Back LED+	Resistor to 5V
16 Back LED-	GND

Circuit Diagram



Summary

- In this project you learnt:
 - How to connect an LCD to the Arduino
 - How the LCD works
 - Using the Liquid Crystal Library to control the LCD