Arduino Bootcamp : Learning Through Projects

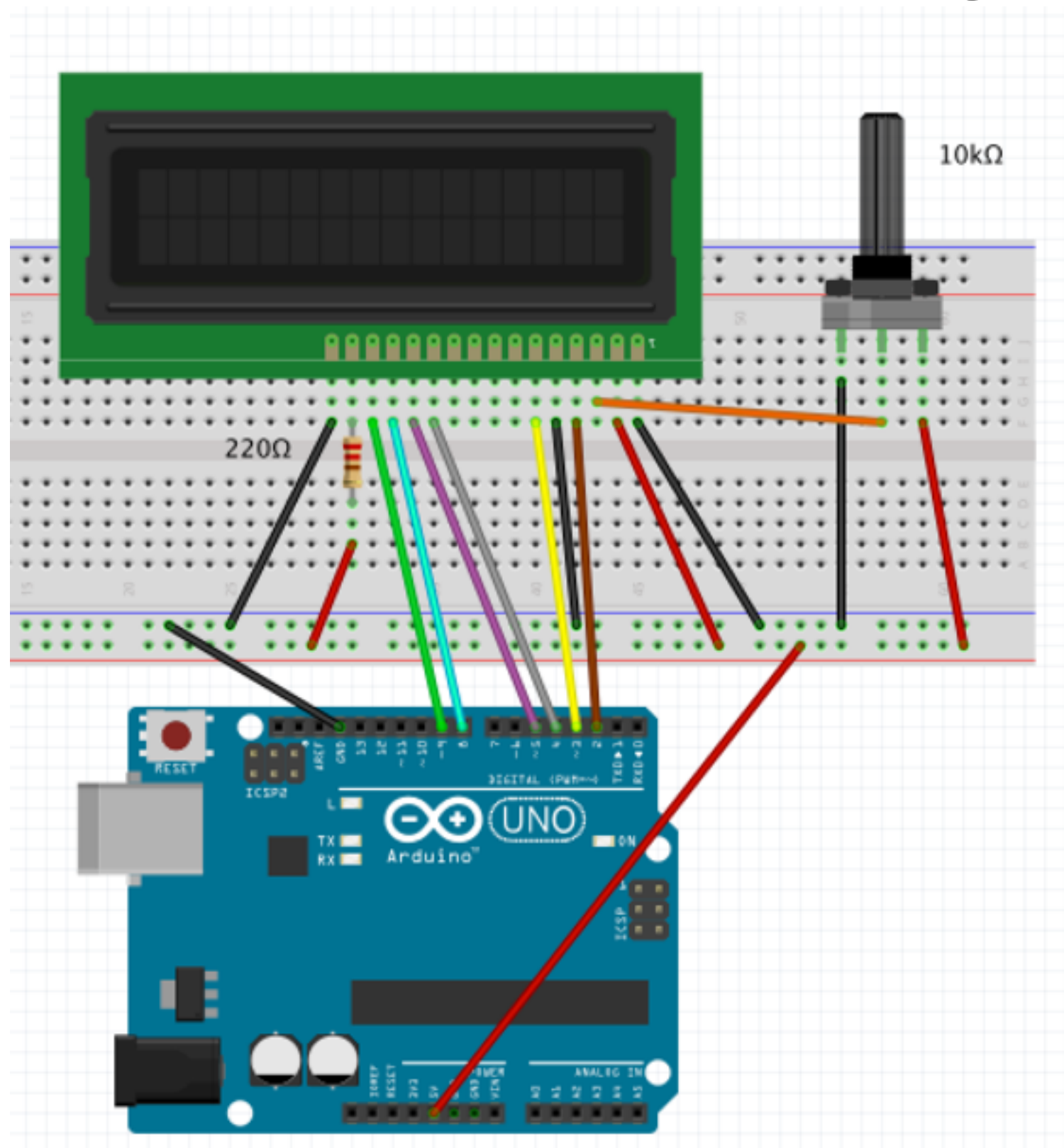Online Weather Station - Final Assembly - Part 3

Project Objectives

- In this project you will learn:

  - How to integrate the Wifi shield and an LCD to create an online weather station

  - Extracting and displaying weather information on the LCD from the Weather Underground API

Parts

- Arduino Uno

- USB A-B cable

- Breadboard

- Arduino Wifi Shield

- Standard 1602 LCD

- Pin header strip (16) where appropriate

- 10 K ohm potentiometer

- 220 ohm resistor

- Connecting wires

Circuit Diagram

LCD Pin	Arduino Pin
1 GND	GND
2 VDD	5V
3 Contrast	Resistor Pot
4 RS	2
5 R/W	GND
6 Enable	3
7 DB0	Unconnected
8 DB1	Unconnected
9 DB2	Unconnected
10 DB3	Unconnected
11 DB4	4
12 DB5	5
13 DB6	8
14 DB7	9
15 Black LED +	Resistor to 5V
16 Black LED -	GND

Summary

- In this project you learnt:

  - How to use the Arduino Wifi Shield and an LCD to create an online weather station

  - Interacting with the Weather Underground API to retrieve weather information