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institute for art, science and technology

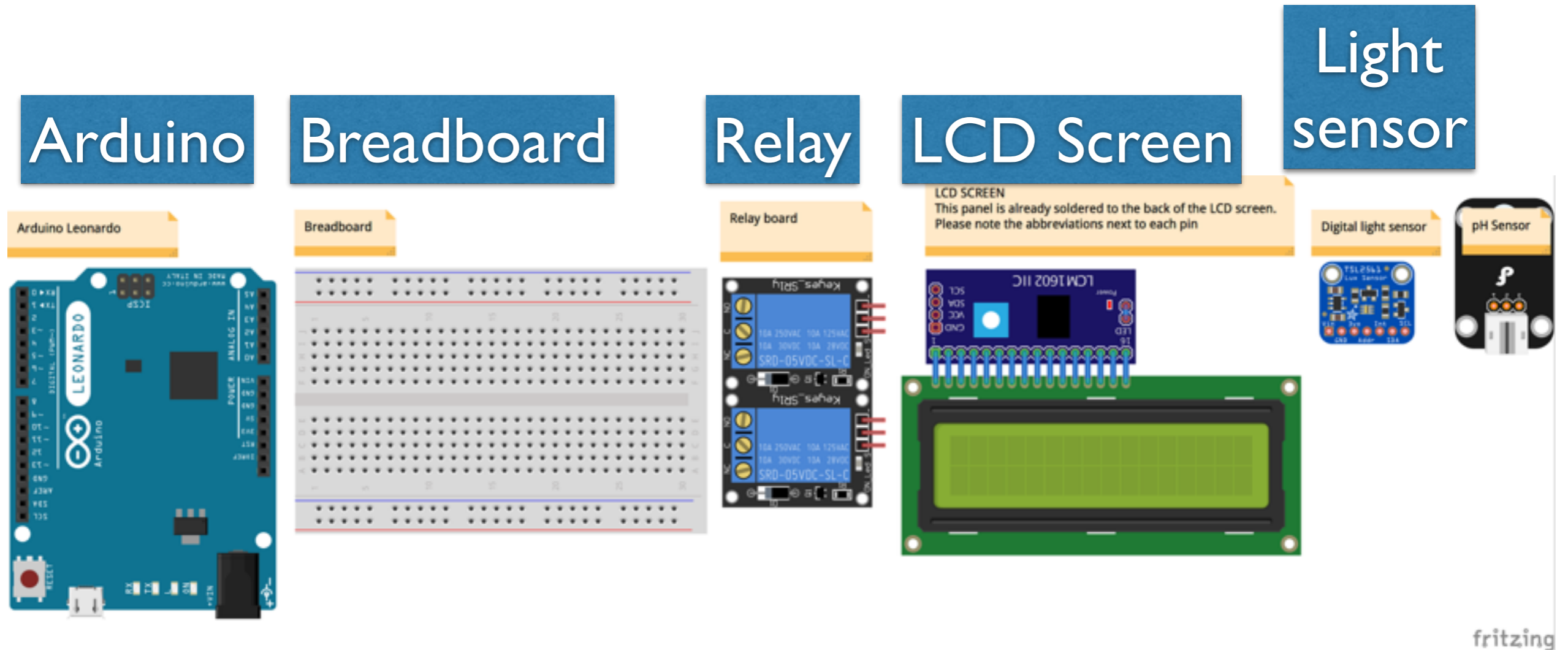
# DIY Photobioreactor

Electronics Assembly Guide



# Step 0

Start with collecting all the parts



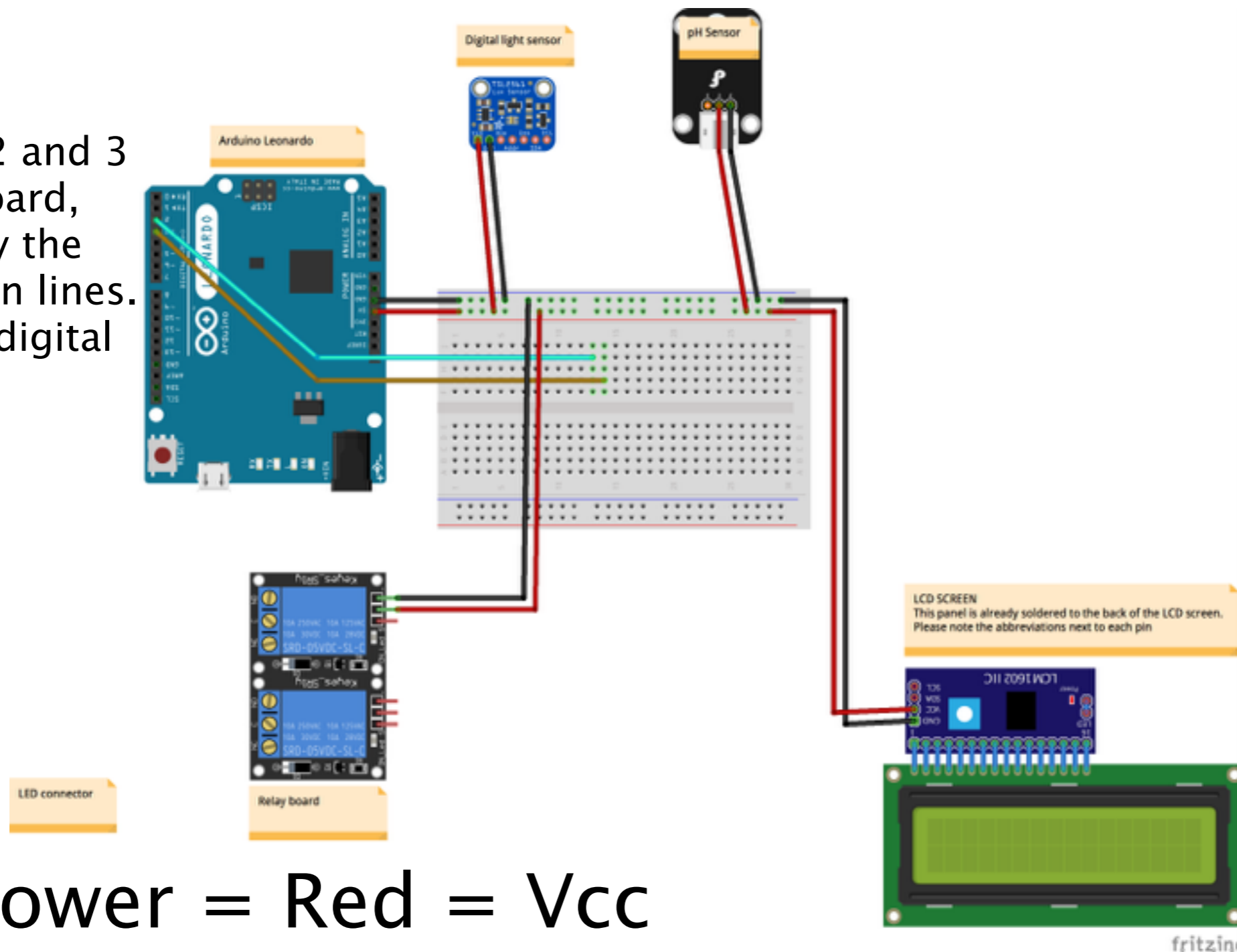
You should also have an LCD strip and a bunch of wires. The pH sensor is a non-essential bonus.



# Step 1

## Wire up the Power and Ground lines

Connect port 2 and 3 to the breadboard, as indicated by the cyan and brown lines. These are the digital “data lines”.

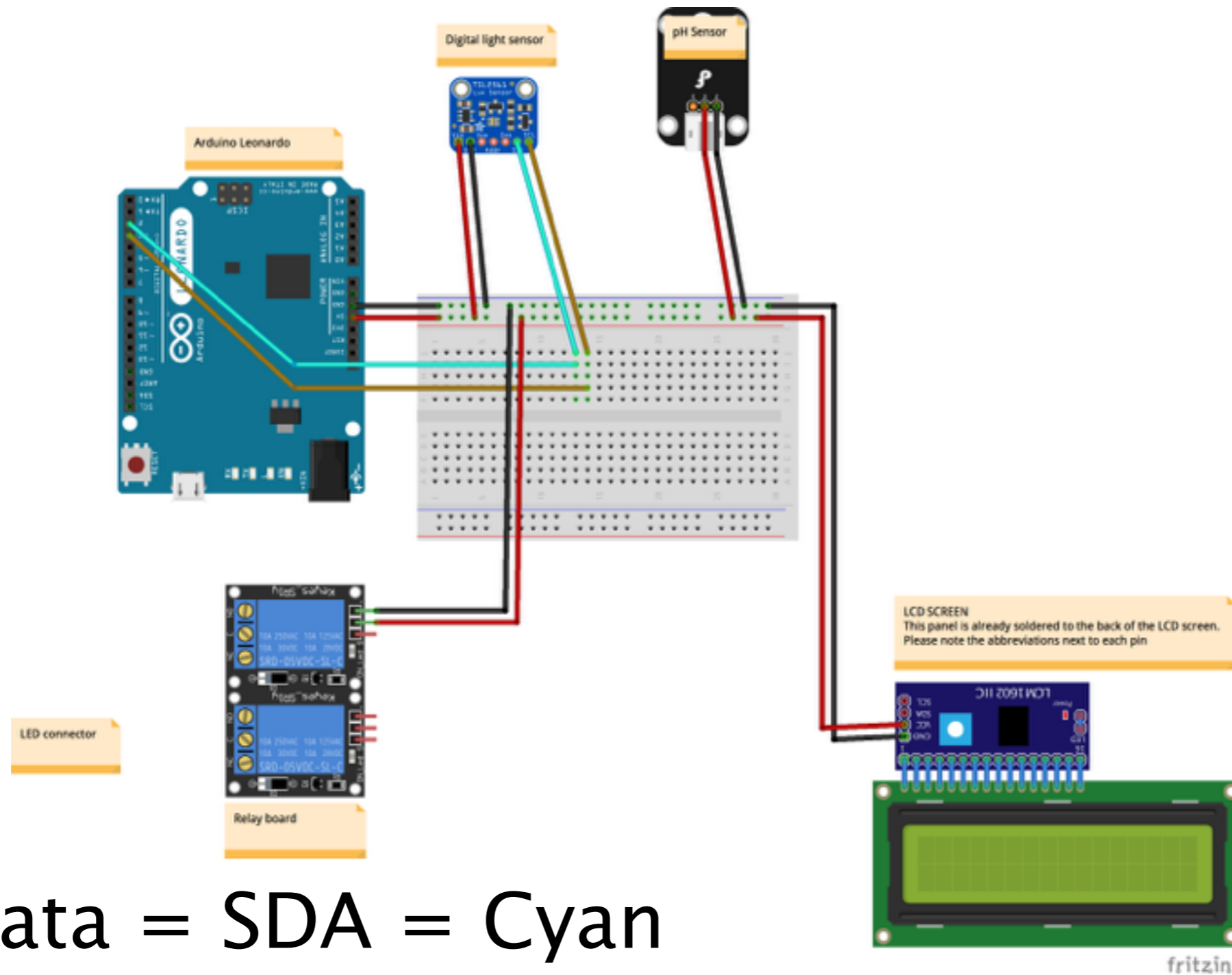


Power = Red = Vcc  
Ground = Black = GND



# Step 2

## Connect the light sensor to the data lines



Data = SDA = Cyan  
Clock = SCL = Brown

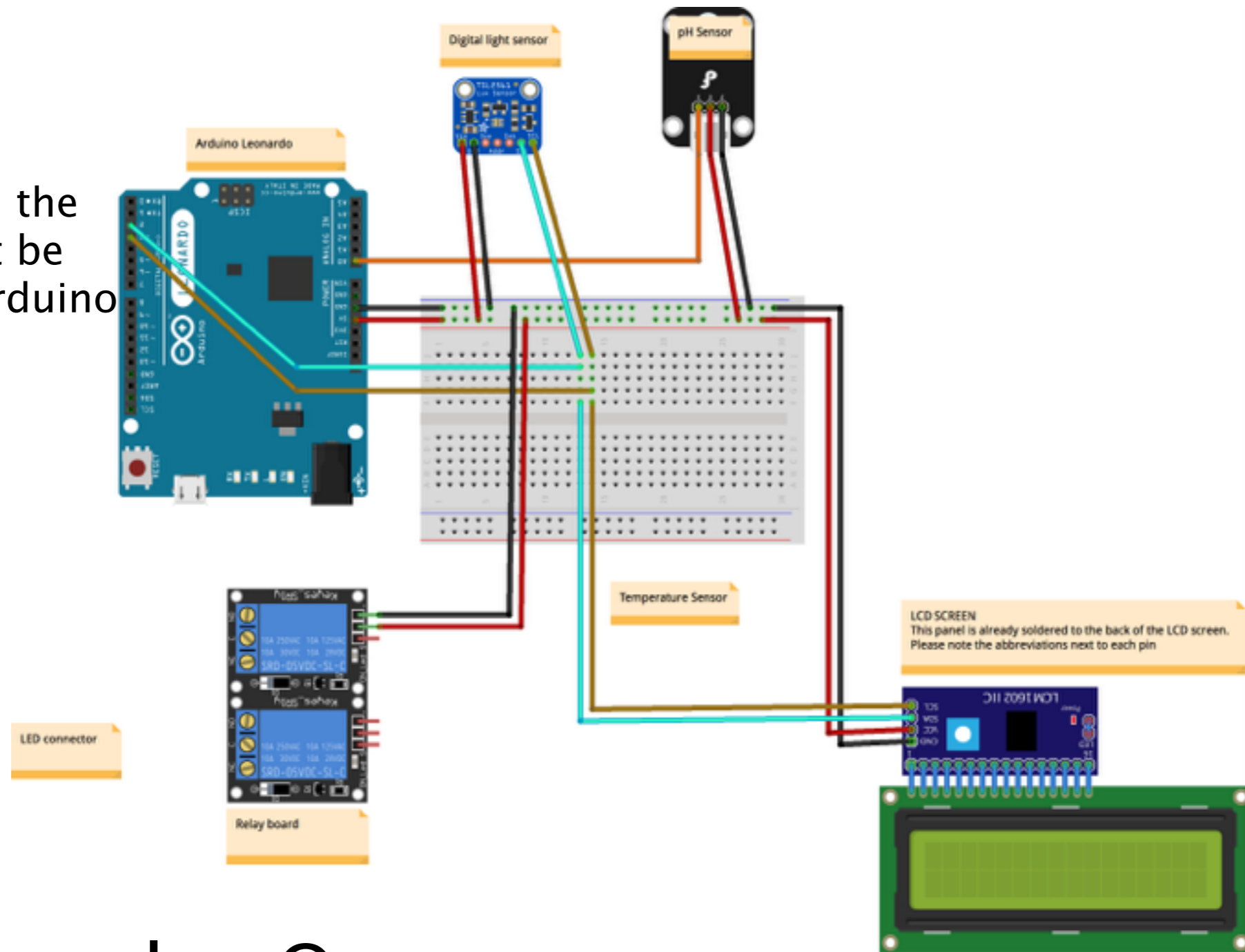




# Step 4 (Bonus step)

## Connect the pH sensor

The signal from the pH sensor must be connected to Arduino port A0



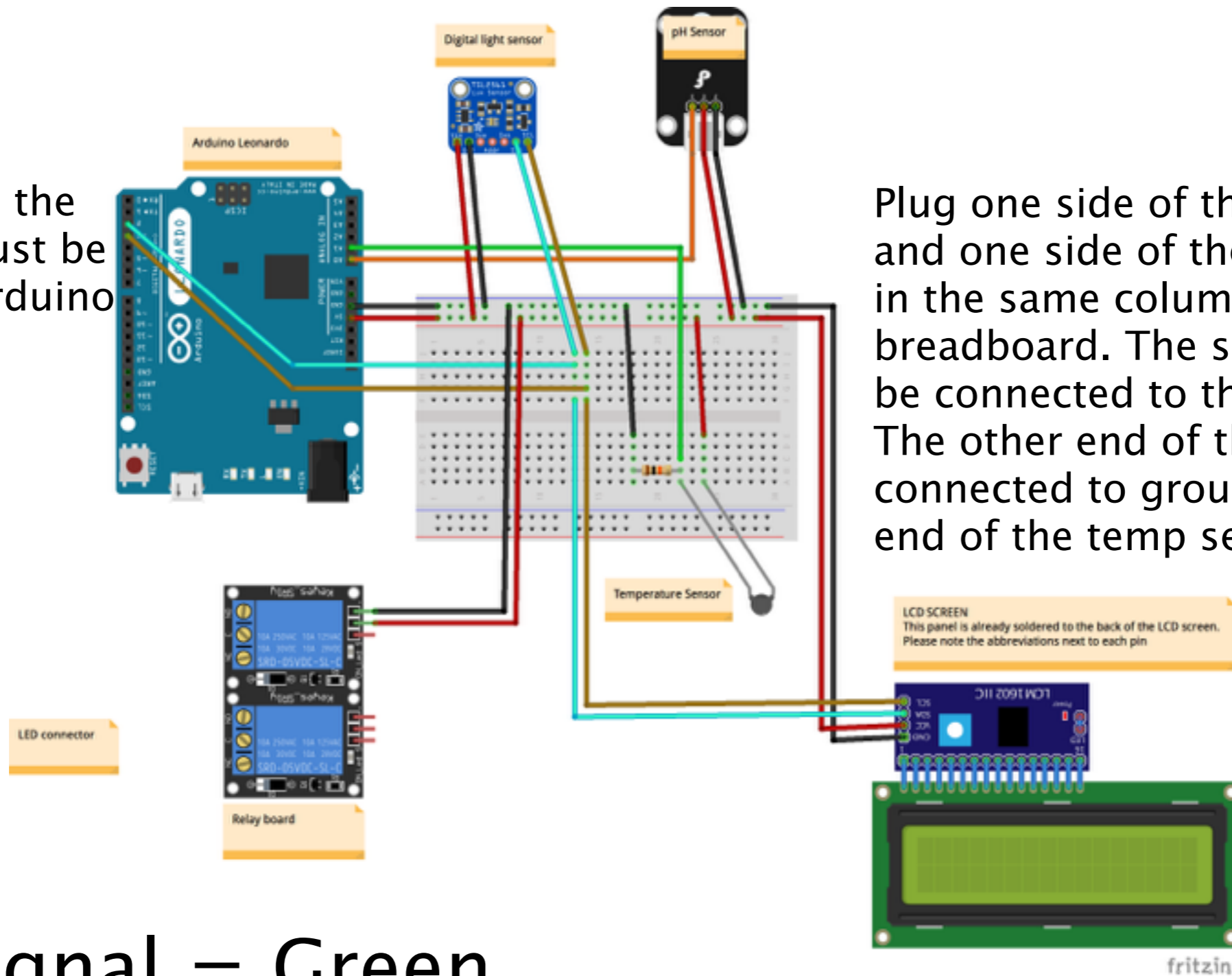
Signal = Orange



# Step 5

## Connect the temperature sensor

The signal from the temp sensor must be connected to Arduino port A1



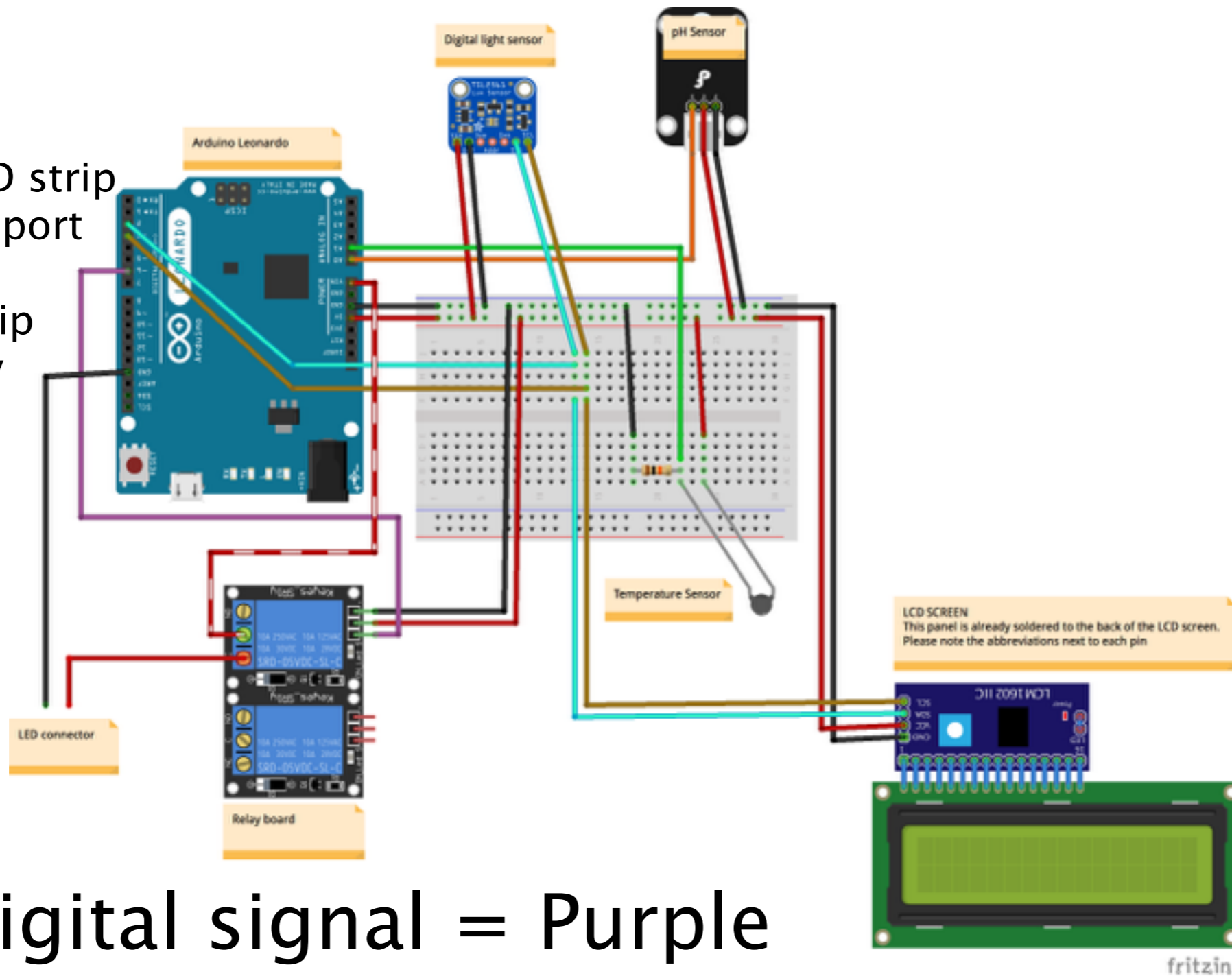
Signal = Green



# Step 6

## Connect the LED strip to the relay

Connect the LED strip ground to GND port on the Arduino.  
And the LED strip Vcc to the Relay



Digital signal = Purple

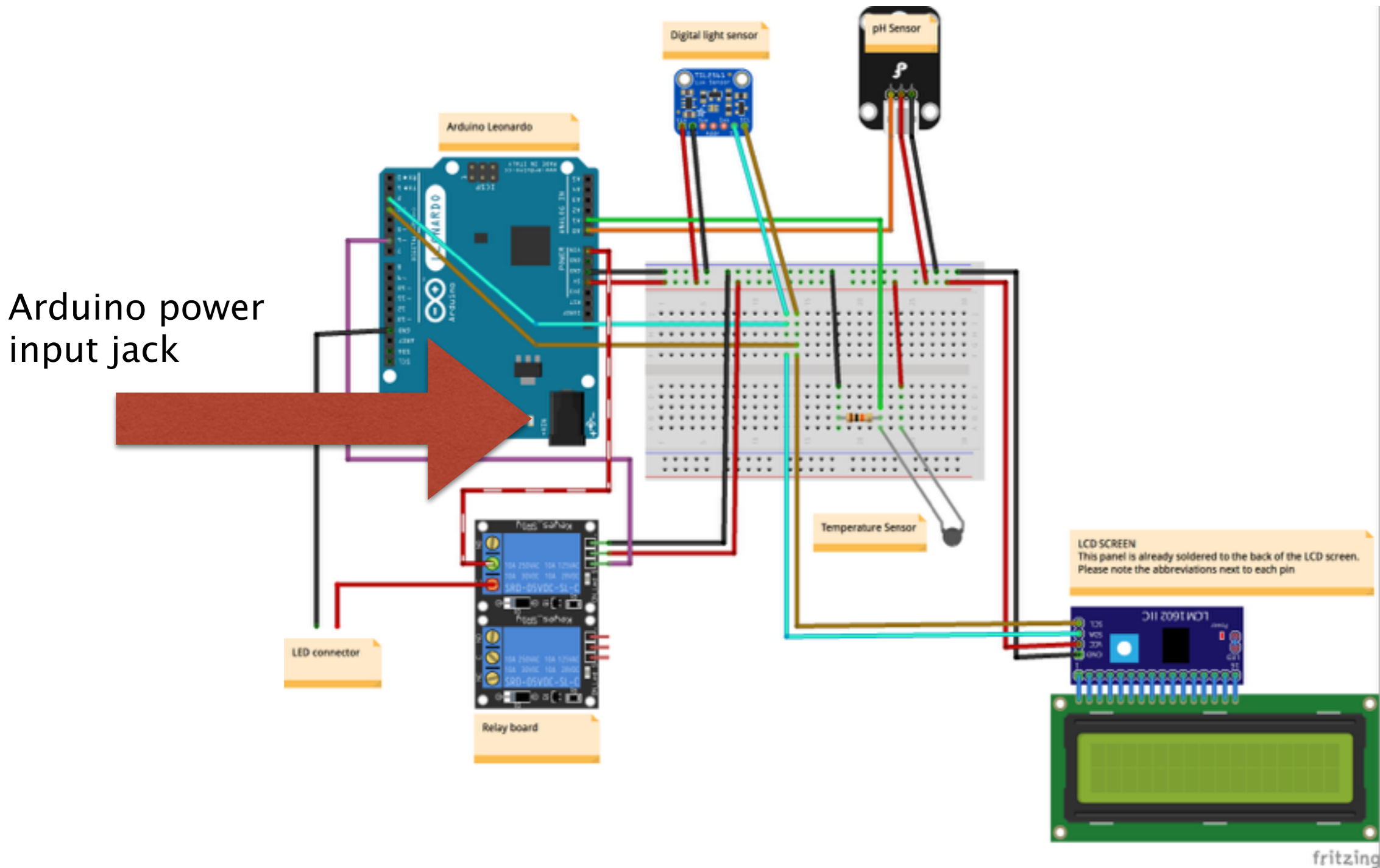
12V Power = Banded Red = Vin (arduino)





# Power it up

Connect the 12V adapter to the Arduino





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