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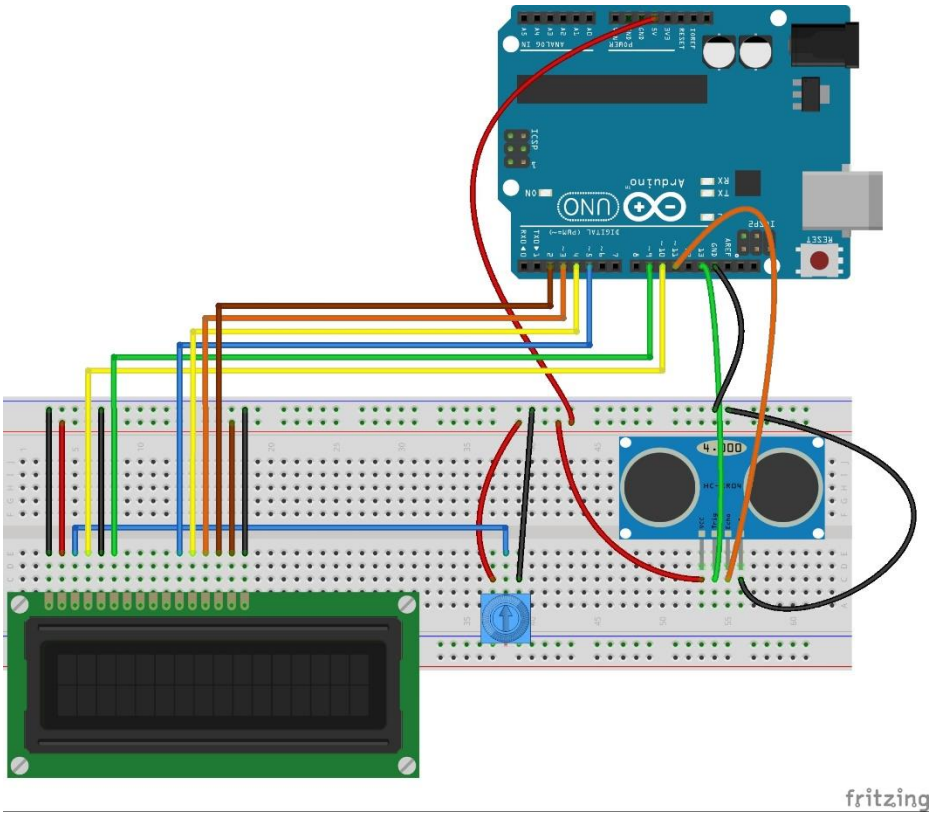
Temperature Sensor Arduino Project 2

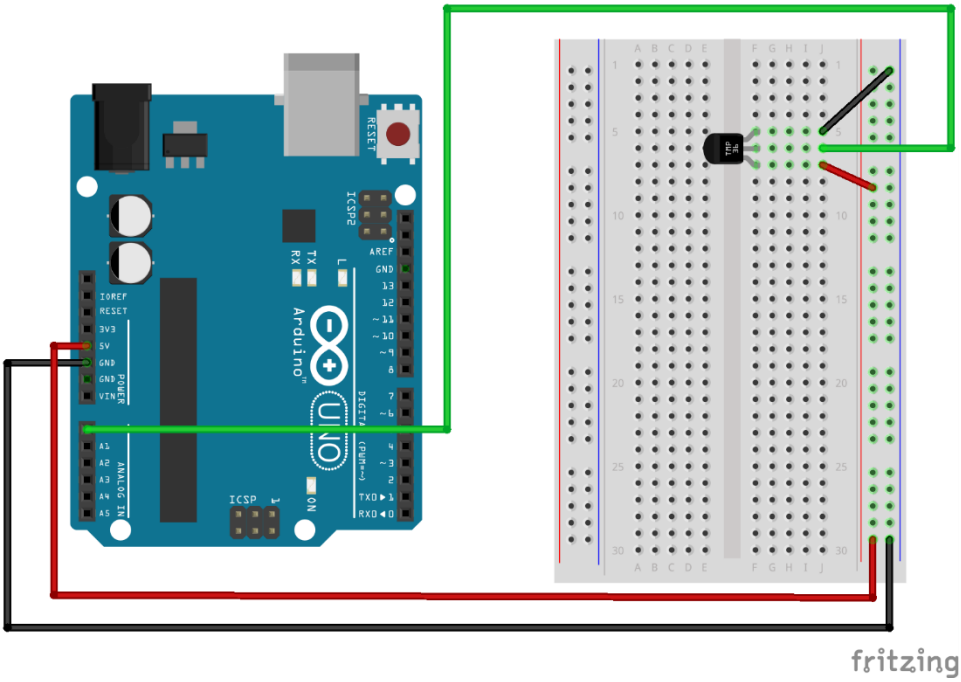
It's been 2 days since I started playing around with Arduino, and I learnt quite a few things about how certain electronic components actually work in a circuit. I also learnt how to use the potentiometer to control the output voltage, and the LCD screen to display output. I had a temperature sensor, and decided to build a circuit which changes color and displays a message, depending on the temperature. The LM 35 temperature sensor used has an accuracy of ± 0.5 degree Celsius. It has a range of -55 to 150 degree Celsius. It provides an output voltage of 10 mV per degree Celsius of temperature. The sensor checks for a new reading every 1 second. The time interval in which it takes readings can be changed to a precision of 1 millisecond. The message and color displayed depending on the temperature are shown in the following table:

Temperature Range (in degree Celsius)	Message Displayed on LCD Screen and Serial Monitor	Color Displayed on RGB LED
<= 15	"It's Cold!"	Blue
<= 28	"It's Room Temp!"	Green
> 28	"It's Hot!"	Red

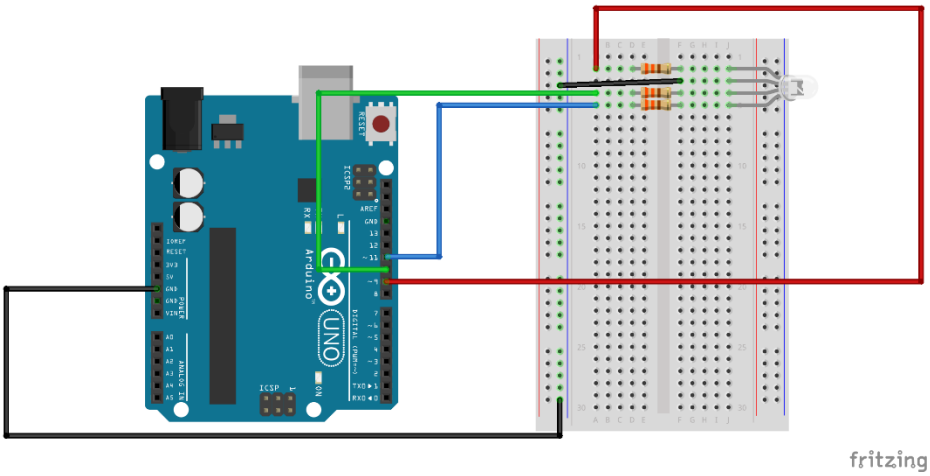
LCD Circuit Diagram



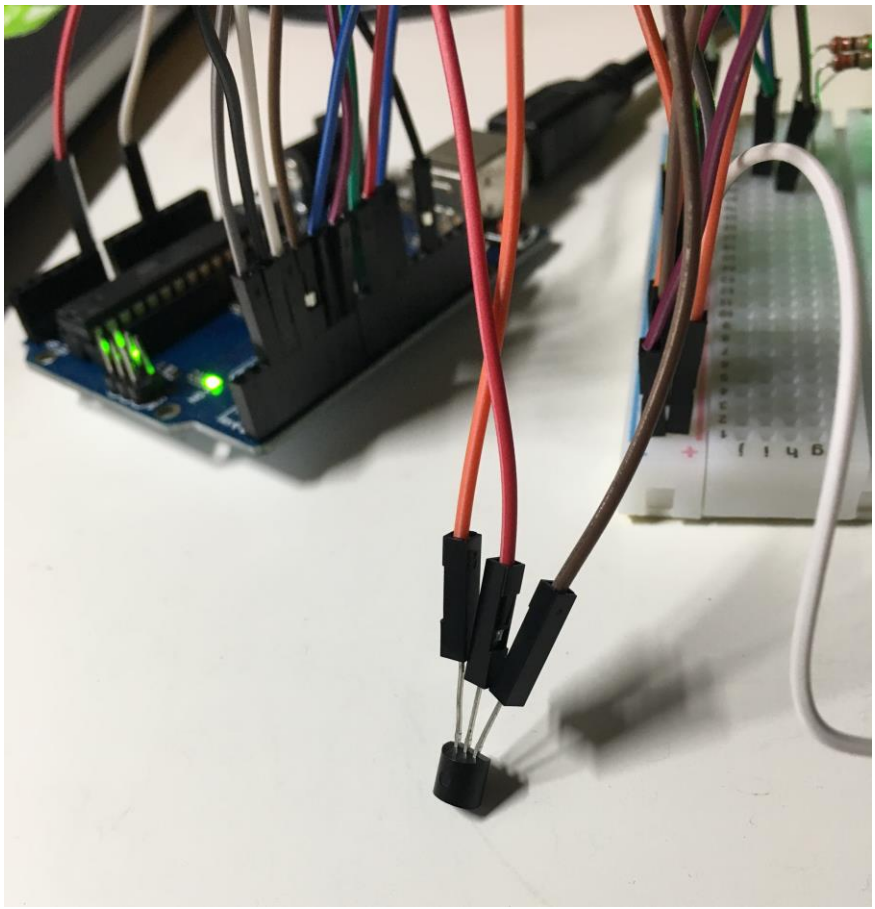
Temperature Sensor Circuit Diagram

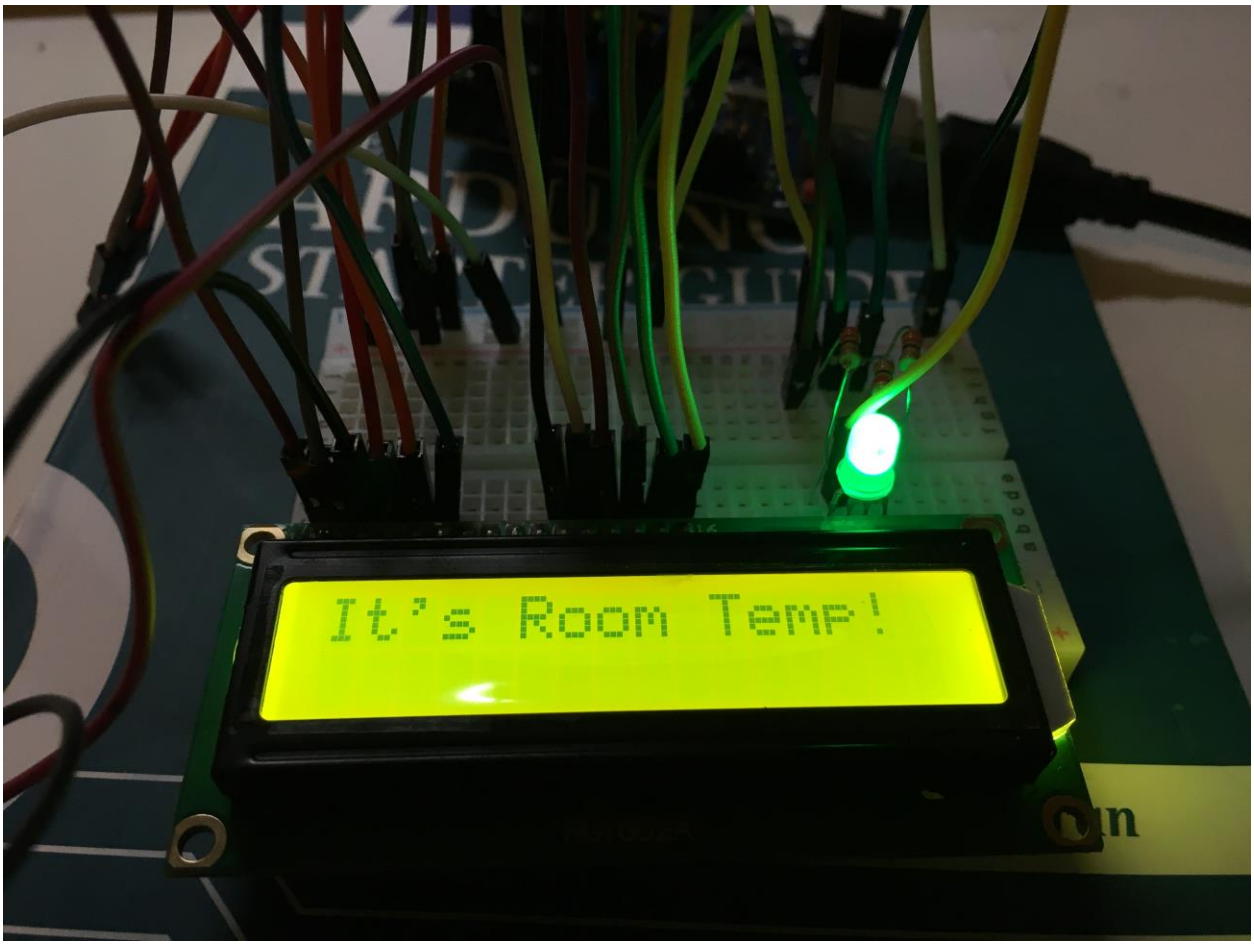


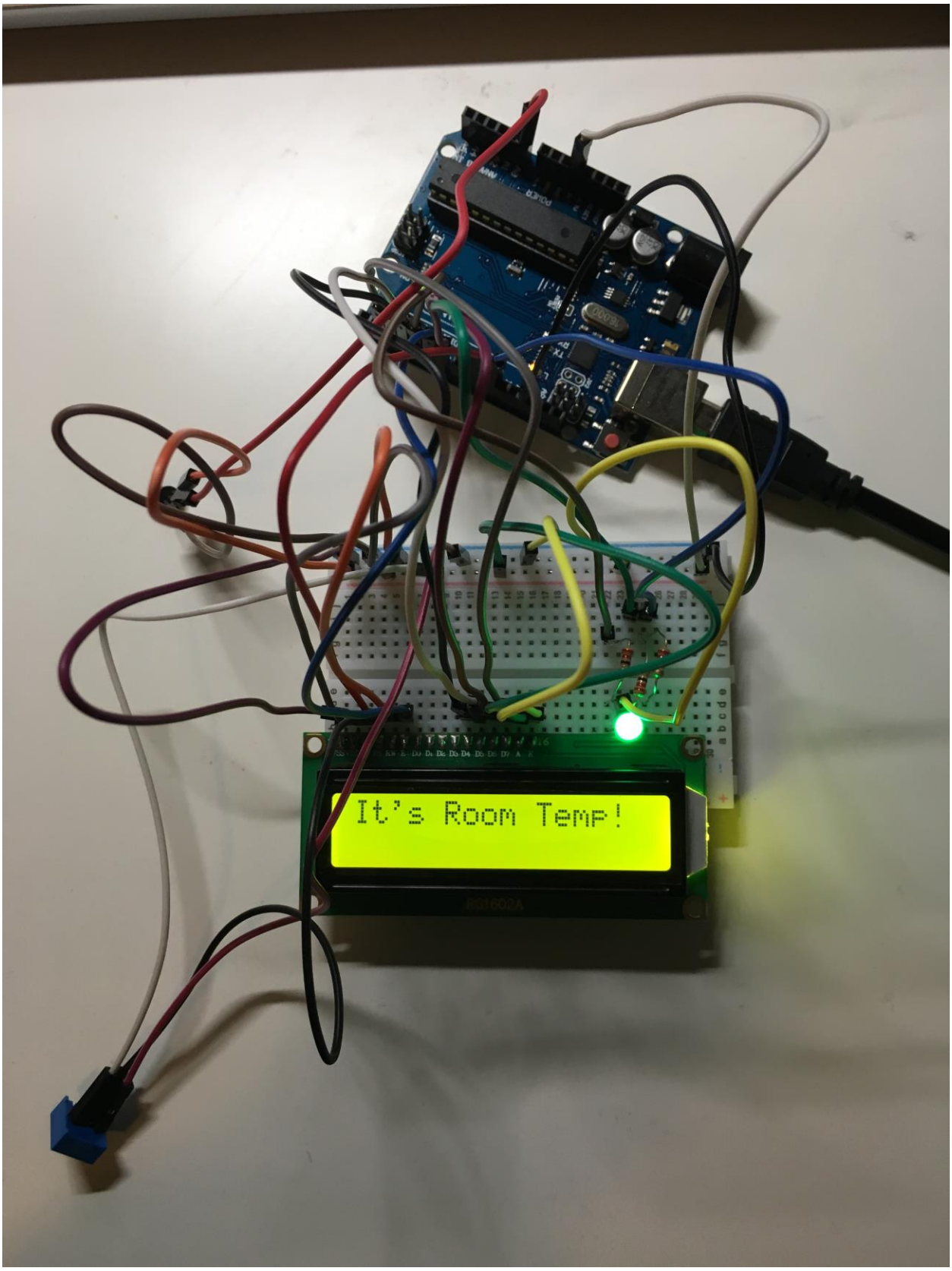
RGB LED Circuit Diagram



Temperature Sensor




It's Room Temp!


It's Room Temp!

Works Cited

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Monk, Simon. "Arduino Lesson 3. RGB LEDs." *adaFruit*, https://learn.adafruit.com/adafruit-arduino-lesson-3-rgb-leds/arduino-sketch.

"LESSON 19: ARDUINO LCD DISPLAY" *Toptechboy*, http://www.toptechboy.com/arduino/lesson-19-arduino-lcd-display.