Temperature Displayed on 4 Digit 7 segment (common anode) by RuiSantos


Author: RuiSantos Random Nerd Tutorials
Hi guys, My name is Rui Santos. Who am I? I'm a 19 years old student currently studying at FEUP Electrical Engineering. I'm Portuguese. I've created this account to share my electronics projects. If you guys enjoy my projects you can visit my website for more information. Or contact me by sending an email to rffsantos16 at gmail.com

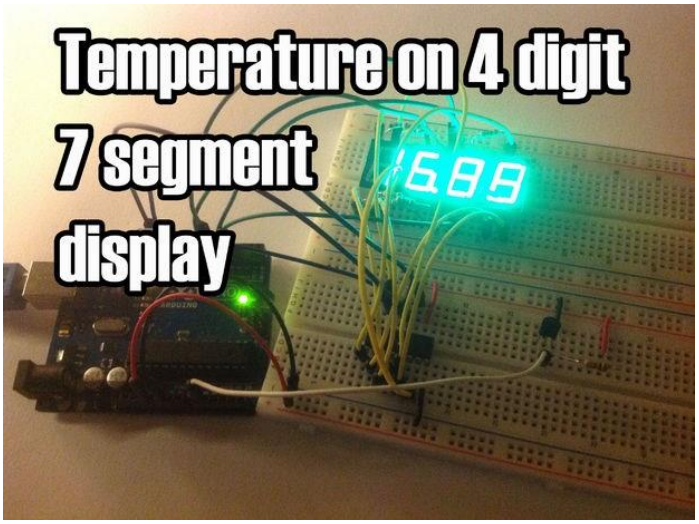
Intro: Temperature Displayed on 4 Digit 7 segment (common anode)

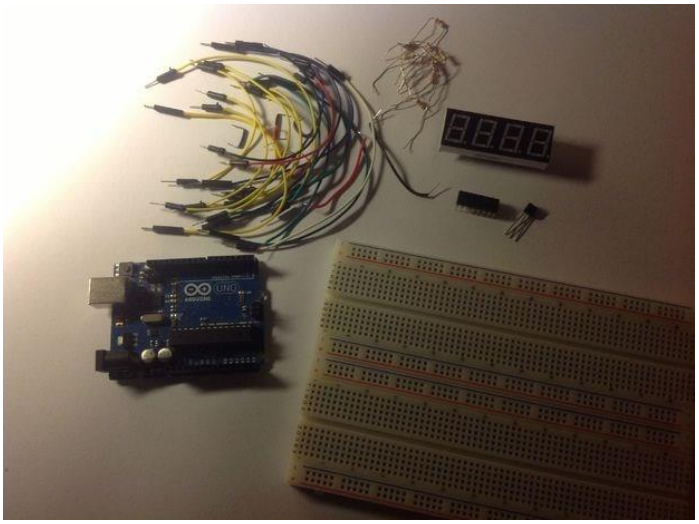
In this project I'll display the temperature in a 4 digit 7 segment display (common anode).
The sensor is the cheapest you can find so actually the temperature changes pretty easily which makes the display to show always different temperatures. But the idea is to apply this code to other projects with 7 segment displays that I might do later. if you want to learn a bit more of 7 segment displays you can read more at this post I've made .

This project is great to learn more about:

- Reading sensors (in this case temperature)
- 7 segment displays (4 digit 7
- segment displays)
- 8 bit Shift Registers (74HC 595)
- Pratice wiring

For more project and tips you can also check my website: http://randomnerdtutorials.com/
You can see this project working right now: http://www.youtube.com/randomnerdtutorials





Step 1: Parts Required

- 1 x Arduino Uno
- 1 x Temperature Sensor (I'm using the LM335Z)
- 1 x 4 Digit 7 Segment Display (common anode)
- 1 x 74HC595 8 Bit Shift Register
- 8 x 220 Ohm Resistors
- 1 x 4700 ohm Resistor
- 1 x Breadboard (or two)
- Jumper Cables

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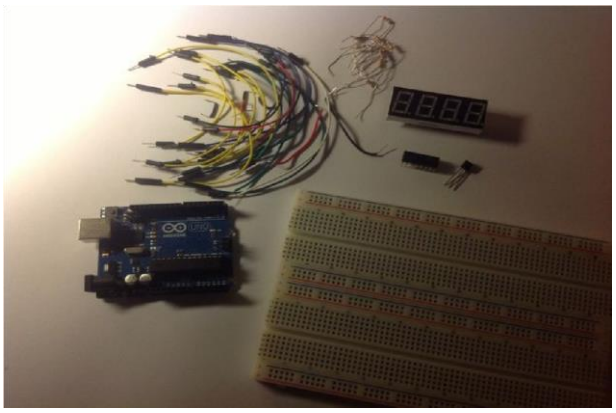
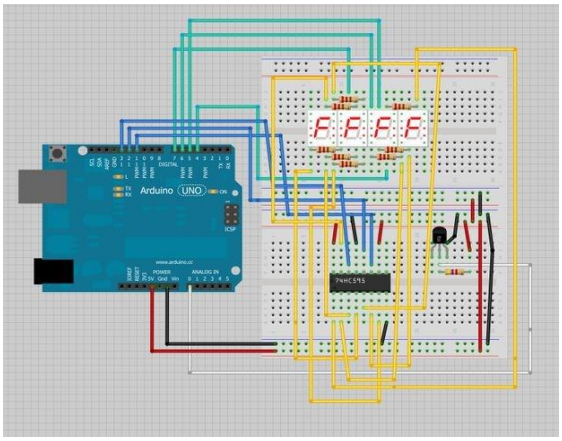
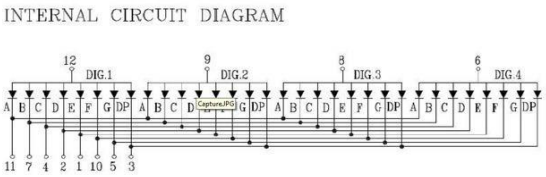
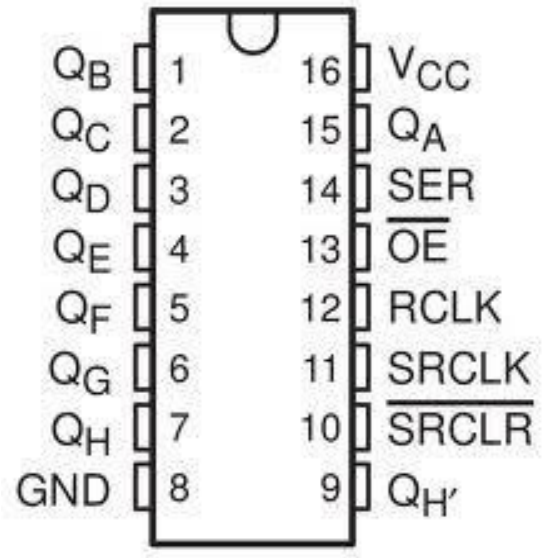


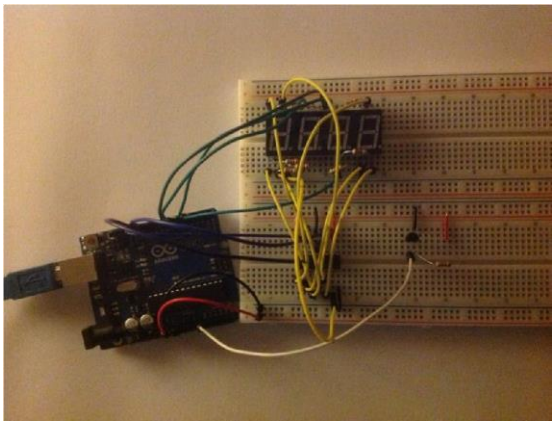
Step 2: Schematics

I think it's a bit hard to follow the yellow connections with this schematic.
So i recommend that you take a look at the 74HC595 pins and to the internal circuit diagram of the 4 digit 7 segment display (common anode).
So how does the yellow connections were made?
Basically the pin 11 connects to the QA, the pin 7 to the QB and so one…









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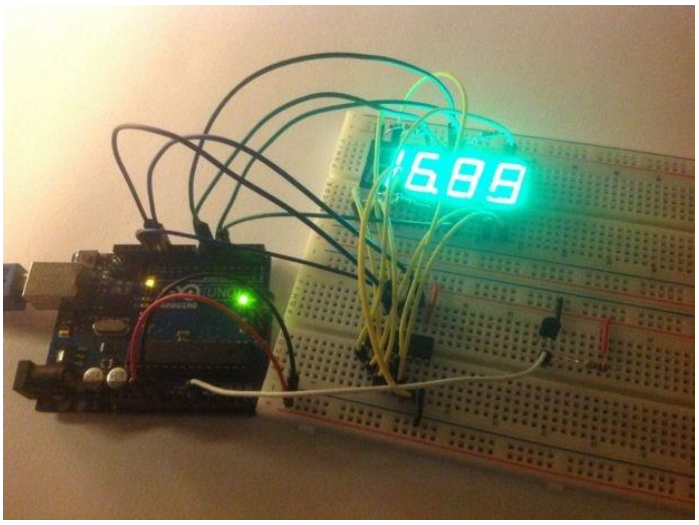
Step 3: Upload the Code

You can find the code here: https://gist.github.com/ruisantos16/5419223



Step 4: Final Product

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Thanks for reading!