Air Line 7 Segment FAUX Neon Clock

(May 2020)

This was started when I saw a Neon Sign idea on the web.

<https://www.instructables.com/id/Realistic-LED-Neon-Sign-Super-Bright/>

Then I searched for a Arduino project to make a 7 Segment clock using WS2812B LED strips.

<https://www.youtube.com/watch?v=PixXKK8N_wA>

Then found this and worked with code.

<https://www.youtube.com/watch?v=LojGHyBFE8Q>

I heavily changed the code to use a DS1307 RTC and added DS18B20 temperature sensor.

I decided to Program the Clock with separate code. Then loaded in the main code.

The code allows one to change color, 24 hour to 12 hour and DST or Non-DST.

Also in the code a LDR is used to change the brightness of the LEDS as the room light changes.

The Temperature is shown every minute on the 20 second mark for 8 seconds.

Powering the unit with a 5 volt 2 amp supply from an old D-link Router.

The air line is normal stuff used for the air pump on aquariums. Thinking one needs about 12 ft.

Build

**The SVG Files For Laser Cutting(Fit K40 Co2 Laser):**

Faux Neon 7 Segment Clock\_V4\_P00.svg The main file showing the pieces x0

Faux Neon 7 Segment Clock\_V4\_P01.svg Top Panel x2

Faux Neon 7 Segment Clock\_V4\_P02.svg Middle Panel x6

Faux Neon 7 Segment Clock\_V4\_P04.svg Back Panel x2

Faux Neon 7 Segment Clock\_V4\_P05.svg The wiring panel without mounting guide. X0

Faux Neon 7 Segment Clock\_V4\_P05A.svg The wiring panel x2

Electronics FAUX NEON Box

**3D Printed parts:**

FAUX NEON Shade Lge V4.stl For the main segments x28

FAUX NEON Shade Sml V4.stl For the Colon x2

I hold the Shades in with clear packing tape.

**Things I would change.(all hardware related)**

-Size of electronics box

-Join and cut the pieces on a larger laser cutter

-used higher density WS2812b strip.

-make the shades thicker where the leds shine on them.

-setup wiring to come to the electronics box

-try using large air line

-try using hot glue instead of 3d printed shades

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Software is finished to my perspective.