Chromalux Neopixel Lamp

BRUXXUS

VIEW IN BROWSER

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Summary

A fun lamp which uses any addressable RGB LED strips, such as ws2812b, a microcontroller, and WLED.

Household > Home Decor

Tags: lamp wifi ws2812b neopixel wled wledlamp

BEFORE YOU PRINT
Three parts need to be printed in Vase Mode / Spiral Printing:
The LED Strip Holder, Diffuser, and Shade.
-The Shade should be printed with 3-4 bottom layers, which become the top of the lamp.
-The LED Strip Holder and Diffuser need to be printed with no top or bottom layers, they're basically completely hollow, single wall prints which slot into the lines in the Base.

Hope this helps. :)
I designed this as a fun little project using extra parts I had lying around and am pretty happy with the results!

I've added a few outer shade designs I've created, but I'd like to see some of the ideas and designs you can come up with! :D

Stuff Needed For Project

Microcontroller - I use ESP8266, NodeMcu Mini D1. They're affordable and easy to work with.

LED Strip - In the photos, I'm using ws2812b strips, 60 LEDs per meter. You'll need 6 segments of 14 LEDs each to assemble as shown.

Please check the Print Settings section below for printing instructions.

I hope you enjoy this and I get to see some Makes of this project.
Feel free to leave a comment with any questions and I'll try my best to help!
WLED Firmware - Plug your microcontroller into your computer's USB port and go to this website - https://install.wled.me/ Follow the instructions. (you may need to install a special USB driver for your computer to recognize the controller. This is normal, and that page has a link to instructions on how to resolve it)
Print Settings
Build volume of at least 130x130x250 required to print at full size. (Stock Ender 3 can print this, but will nearly max out Z axis.)

Print the shade in Vase Mode with a few bottom layers. The base layer will eventually become the top of the lamp and hide the LED strips from above.

The Diffuser and LED Strip Holder should be printed with NO top or bottom layers, using Vase Mode. I've tried the diffuser using clear PETG and printed with Cura's "Fuzzy Skin" and it created a more sparkly effect. The photos and animations on this page shows the diffuser printed with white PLA, which gives a smoother look to the lights.

I suggest printing all the Vase Mode models with a line width of 0.44mm. This just makes them a bit sturdier.

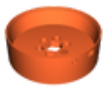
Model files

chromaluxstripholder.stl

diffuser180.stl

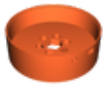
diffuser240.stl

stripholder240.stl



chromalux_base_bigger_tolerance.stl

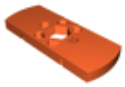
led_holder_180.stl



chromalux_base.stl

chromsluxplainshade.stl

hexshadeprintoriented.stl



chromalux_basefittest_wide_tolerance.stl

spiralshadenew.stl

hexshade240.stl

chromaluxdiffuser.stl

hexshade180.stl

chromaluxcover.stl

circlesshadeprintoriented.stl

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