



Daft Punk Helmet



Gruthius

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Summary

This is a remix of DmikriK42's design on Thingiverse. <https://www.thingiverse.com/thing:3225502>

[Costumes & Accessories](#) > [Masks](#)

Tags: [mask](#) [led](#) [discovery](#) [punk](#) [daft](#)

This is a remix as mentioned in the summary. I made this for a friends birthday and modified it to fit a standard 32x8 LED Matrix from [Amazon](#).

The modified files are the ear cups (threaded and hollowed to house electronics) and the front top part that has a cutout to fit the LEDs, and screw holes to fit the LED mount bracket.

I used a 2s LiPo to power it all, with a 5v 3a power regulator from [Amazon](#). The brains is a Raspberry Pi Pico using [blaz-r's neo pixel library](#) on github and some [custom code](#)

I also designed some diffuser parts for the block strips on the left and right of the mask. They are printed in clear PLA with 15% infill which worked well.

The rest is all printed to save filament and time, and used a whole roll of filament.

For the visor I used 15% car window tint, and A3 laminating sheets, and laminated it between a sheet and cut that out to size. Doing it this way left zero bubbles and was super easy.

I'm happy with how it came out and he seemed very happy with his gift! Hope someone else takes on this project because its quite fun!

Here's a simple step-by-step guide to setup the code on the Pico (Generated by Claude):

- What you'll need A Raspberry Pi Pico (or Pico W)
- A USB cable
- Your NeoPixel/WS2812 LED matrix wired to the Pico (this code expects it on GPIO 0)
- Thonny IDE installed on your computer

Step 1: Install MicroPython on the Pico Download the latest MicroPython UF2 file for the Pico from micropython.org/download. Hold down the BOOTSEL button on the Pico while plugging it into your computer via USB. The Pico will show up as a USB drive (like a flash drive) called RPI-RP2. Drag and drop the UF2 file onto that drive. The Pico will reboot automatically — it now runs MicroPython.

Step 2: Connect Thonny to the Pico Open Thonny. Go to Tools > Options > Interpreter. Set the interpreter to MicroPython (Raspberry Pi Pico). Select the correct COM/USB port (Thonny usually detects it automatically). You should see a MicroPython prompt (>>>) in Thonny's Shell panel at the bottom.

Step 3: Install the neopixel library this code depends on This script uses from neopixel import Neopixel — note this is a specific third-party helper library (not the built-in `machine.Pin` + `neopixel.NeoPixel` combo), likely the "rp2-pico-neopixel" library by blaz-r. You need to get its `neopixel.py` file onto the Pico: In Thonny, go to Tools > Manage Packages (this only works for some libraries) — or more reliably: Download `neopixel.py` from the library's GitHub source. In Thonny, open that file (File > Open), then use File > Save As, choose Raspberry Pi Pico, and save it as `neopixel.py` (must be in the root of the Pico, not a subfolder).

Step 4: Upload your main script Open your LED matrix script (the one you shared) in Thonny. Go to File > Save As. Choose Raspberry Pi Pico as the save location. Name the file `main.py` — this makes it auto-run whenever the Pico powers on. Step 5: Run it Click the green Run (▶) button in Thonny to test it live. Once it's saved as `main.py`, it'll run automatically every time the Pico is powered — even without a computer attached, as long as it has power (USB or battery).

Quick troubleshooting tips

If nothing lights up, double check the GPIO pin number in

`Neopixel(numpix, 0, 0, "GRB")` matches how you wired the data line. If you get `ImportError: no module named 'neopixel'`, the library file wasn't saved

correctly to the Pico's root directory. Make sure your matrix truly has 256 pixels, or adjust numpix to match.

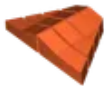
This remix is based on



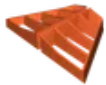
Daft Punk Helmet

by DmitriK42

Model files



diffuser-clear.stl



diffuser-black.stl



led_bracket.stl



ear-cup-female.stl



ear-cup-male.stl



front_top_helmet.stl



rear_helmet.stl



front_bottom_helmet.stl



full_helmet.stl



thomas_helmet.blend

Other files



code-to-save-as-py.txt

☐ Edit the extension to .py. LED pattern code

[Find source .stl files on Thingiverse.com](https://www.thingiverse.com)

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