



## PrusaBeat Headphones / Ultimate DIY Headphones for DJs and Musicians



Vagus

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### Summary

Headphones Inspired by Printables, Prusa, Prusacaster, and Hercules DJ Controllers. DIY high-fi audiophile headphones

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Tags: [headphones](#) [audiophile](#) [prusacaster](#) [herculesdj](#)

### DIY 3D-Printed Headphones - High-Performance Sound, Maker-Driven Design!

It all started with an obsession—**headphones**. After **25+ years chasing the perfect pair**, spending thousands on different models, I finally asked myself: **why not design my own?** I wanted the best of both worlds—the **precision of my Sennheisers** and **the power of my Beyerdynamic DT 770 Pros**—but with a **fully customizable, 3D-printable twist**.

#### The Result? A Revolution in DIY Audio Gear!

Using **Autodesk Fusion**, I engineered a **fully 3D-printable, snap-together headphone shell**—no screws, no heat inserts, no extra tools. Just **pure plug-and-play DIY engineering**. These headphones are:

**Support-Free & Easy to Print** – Works on any well-tuned 3D printer.  
**Affordable Yet High-Quality** – \$20-\$40 in parts, **rivaling \$200-\$400 models.**

**Completely Customizable** – Print in **any color, tweak the shape, or swap out drivers** for a personalized sound.

**Inspired by the Prusa3d Hexagon Filament Spool, the incredible PrusaCaster guitar, and for @Hercules DJ Controllers**

### **Perfect for DJs, Producers, & Audio Tinkerers**

This design is my entry into the **Printables DJ Gear Contest**, and it pairs perfectly with @Hercules DJ Controllers and the **PrusaCaster guitar**. Whether you're **mixing beats, producing tracks, or just love great sound**, these DIY headphones let you **build pro-level gear at a fraction of the cost.**

### **Parts List (Easily Found on Amazon & AliExpress)**

**50mm Headphone Drivers** – [Hifi Option](#) - [High End Option](#) - [Premium Option](#) - [Quality Option](#) - [Budget Option](#)

**100mm Replacement Ear Pads** – [Amazon Link](#) - [Option 1](#) - [Option 2](#) - [Option 3](#)

**3.5mm Female Plating Stereo Jack Panel Mount Connector** – [Amazon Link](#)

**3.5mm Stereo Female to Dual 3.5mm Male Audio Cable** – [Amazon Link](#)

### **Wiring Tips**

The **longest pin on the stereo jack is ground**—with the pins facing you:

**Left Channel (1)** – Left pin

**Right Channel (2)** – Right pin

**Ground (3)** – Bottom pin

### **Easy Soldering for Beginners with little to no soldering experience**

**18ga or 20ga Wiring** - [18 Gauge](#) - [20 Gauge](#)

**Soldering Iron or Station** - [Cheap Soldering Kit](#) - [My Soldering Station](#)

I personally use **black wire for everything** to keep it sleek, but you can color-code it to match your print.



**Easy Assembly - No Extra Tools Needed!**

**Snap-fit design** ensures a secure build—**no glue required**, though CA glue can help keep accents in place.

**Ear pad mounts** should fit smoothly, but a quick **deburring pass** can help if needed.

**Modular design** means future version with **heat press threads & screws** for easier driver swaps! AND multiple driver size options







Prints well in PLA and PTEG, but will be more durable and heat-resistant with ASA or ABS. I used .20mm layer height with about 15% cubic infill and found it works well, but your printer may vary with different slicer settings. The design should be very forgiving to most settings.

### **Join the DIY Audio Revolution!**

These aren't just headphones—they're a movement. **Maker-driven, customizable, and built for serious sound.** I'll be releasing the full design files soon, making it easier to experiment with **different drivers, accessories, and materials.**

**What would you tweak or remix? Let's build something epic together!**

## **Model files**



**STLs**

10 files



**prusabeat-headphone-v2-fillament-right.stl**



**prusabeat-headphone-v2-fillament-left.stl**



**prusabeat-headphone-v2-yoke.stl**

☐ Print 2 - left and right are the same



**prusabeat-headphone-v2-headband.stl**



**padattachment-l.stl**



**shell-l.stl**



**shell.stl**



**padattachment-l.stl**



**drivermount-l.stl**



**drivermount-1.stl**



3mF

5 files



**prusabeat-headphone-v2-ear-parts.3mf**



**prusabeat-headphone-v2-fillament.3mf**



**prusabeat-headphone-v2-yoke.3mf**

☐ Print 2 - right and left are the same



**prusabeat-headphone-v2-earpad-attachment-left.3mf**



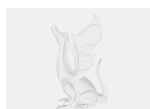
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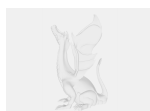
**prusabeat-headphone-v2.3mf**



**prusabeat-headphone-v2.stl**



**prusabeat-headphone-v2.step**



**prusabeat-headphone-v2.skp**

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