

Dual Sauce Holder Print & Fit Guide

Two sauces, carried by your straw, so your lap stays out of it.

[One Plate](#)[No Supports](#)[Pre-Configured 3MF](#)

Built by MakerX Designs · Virginia Beach, VA · makerxdesigns.com · © 2026

Two dipping sauces, a box of nuggets and a drink do not fit in one pair of hands. This holder threads onto your straw and rests on the lid, putting both sauces within reach.

In the download

File	What it is
makerx-fast-food-sauce-holder.3mf	Start here. One plate, oriented flat, tested profile applied.
makerx-fast-food-sauce-holder.stl	Raw mesh for your own slicer. Lay it wells-up; no supports needed.

1 · The part

Overall size	107.2 × 56.5 × 22.2 mm
Wells & port	Two wells for standard 1 oz (28 g) dip cups · oversized straw port, thin soda straw up to milkshake
On the plate	27.37 g PLA · 9.18 m · 1 h 46 m · about \$0.41

2 • How it mounts

★ The straw is the mount

No clip, no clamp, no adhesive. The straw passes up through the center port and the holder sits on the lid — the straw carries the load and keeps it centered.



Two wells joined by a bridge, with the straw port through the middle. One piece, no hardware, no assembly.

- 1 Pull the straw up out of the lid a little, leaving room to work.
- 2 Feed the straw up through the **center port** from underneath.
- 3 Slide the holder down the straw until it settles flat on the lid.
- 4 Drop a sauce cup into each well. Peel the lids first — that is the whole point. To remove, lift straight up off the straw.

3 • Slice it

- 1 Open `makerx-fast-food-sauce-holder.3mf` in Creality Print, or any slicer that imports 3MF project files.
- 2 When it asks whether to load the project's print settings, **say yes** — that is the whole point of the 3MF.
- 3 Confirm your printer and filament, then slice. Using the STL instead? Sit it wells-up and flat on the plate; it needs no supports in that orientation.

4 • The profile baked into the 3MF

Using your own profile instead? Match these — all sliced and print-tested on a Creality Hi with a 0.4 mm nozzle.

Quality	
Layer height	0.10 mm
Nozzle	0.4 mm
Walls	3 loops
Top / bottom	5 / 3 layers
Infill	10 % gyroid

Supports & adhesion	
Supports	None required
Brim	5 mm
Plates	1 · no filament swaps

Material & plate	
Filament	PLA as sliced
Nozzle temp	220 °C
Bed temp	60 °C

What it costs you	
Print time	1 h 46 m
Filament	27.37 g · 9.18 m
Cost	about \$0.41

A note on food contact

Sauce goes in the cup, not in the well — the printed part holds the packaging, it does not touch what you eat. Layer lines trap residue, so wash it by hand and skip the dishwasher: PLA softens well below a typical drying cycle.

5 • Before you hit print

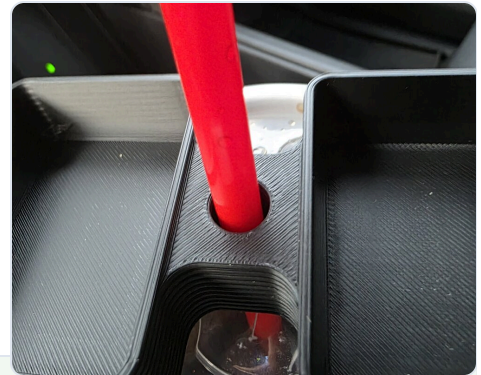
- ☐ Plate is clean — the footprint is wide and flat, and that is all the adhesion you get.
- ☐ Brim on. It is a low, broad part with a lot of perimeter.
- ☐ Supports confirmed **off**.
- ☐ Around 30 g of filament left on the spool.

6 • Off the plate

- 1 Let the plate cool, then flex it and lift the part off.
- 2 Peel the brim away from one corner. It should come off in a single ring.
- 3 Run a fingernail around the bottom edge of each well to knock off any brim residue, so the part sits flat on the lid.
- 4 Check the straw port is clear. A first-layer whisker across the hole is the one thing that will stop it sliding down the straw.

★ Test the port with the straw, not your eye

Push an actual straw through before you take it out to lunch. The port is sized generously, but a slightly over-extruded first layer can narrow it just enough to bind.



The straw through the center port. This is the entire retention mechanism — nothing grips the rim.

7 • Using it

- **Peel the sauce lids before you load them.** The wells hold the cup, not the lid, and open cups are the reason this exists.
- **Load it in the cup holder, not in your hand.** Seat the drink first, then thread the holder on. Two full sauce cups on a bridge is a top-heavy thing to juggle.
- **It rides best on a firm lid.** A crisp dome lid carries it happily. A soft or badly seated lid will let the whole assembly tilt.
- **Lift straight up** to remove. Twisting it off can drag a sauce cup out with it.



Loaded and seated. Both sauces stay level and stay put.

8 • Making it yours

- **Different sauce pods.** If your local place uses deeper or round cups, leave a comment on the model page with the size and I will cut a version to match.
- **Material.** PLA is fine for a part that lives in a car for the length of a meal. If yours will bake on a dashboard all summer, print it in PETG.
- **Color.** Printed flat with wide top surfaces, so a two-color swap at the bridge layer reads clearly if you want a stripe.

Where precision meets the printer

Thanks for printing this one. If it saved your lap on a drive home, that is exactly what it was designed to do.

For years my design world existed entirely behind a screen. As a mechanical engineer I spent countless hours building complex CAD models, but there was always a missing link — the ability to hold an idea in my hands. That changed in January 2026, when I went headfirst into 3D printing. The moment that first layer stuck to the bed, the gap between concept and reality vanished.

Coming from a background where precision is everything, tolerances aren't suggestions to me — they are a religion. I didn't want to print trinkets; I wanted to apply industrial engineering discipline to desktop manufacturing. Every wall count, every layer height and every infill percentage in this guide is a deliberate decision backed by testing. If a part can't handle the environment it was built for, it goes back to the drawing board.

Three principles behind every print

01

Functional Engineering

High-utility, real-world solutions rather than purely decorative models. If it doesn't solve a practical problem, it doesn't leave the workstation.

02

Rigorous Tolerances

Designed in professional CAD with mechanical intent — press-fits that click and assemblies that work straight off the build plate. No sanding, no filing, no guesswork.

03

Bridging the Gap

Industrial structural integrity at maker speed. Proving a desktop printer can produce parts worthy of real engineering applications is what drives every release.

The workshop

Mechanical engineering degree · SolidWorks precision modeling · two Creality Hi printers · Virginia Beach, Virginia · every design free to download.

A note on sharing

I'm thrilled when people use and share these designs. I just ask that you respect the license shown on the model listing and give the required credit, so I can keep contributing to the collective workshop.

IF THIS ONE EARNED ITS SPOT

A **Like** or a **Favorite** on the model page takes a second and genuinely helps. A **Boost** helps more than either — it is what puts a design in front of makers who would never otherwise come across it. And if you **Follow** me, new models and updates land in your feed as they are released. However you choose to support it, thank you — it is what keeps everything here free to download.

Got sauce cups this one doesn't fit — deeper, rounder, a different chain entirely? Leave a comment on the model with the size. That is where the next version starts.

Happy dipping. — MakerX Designs · makerxdesigns.com · © 2026