

Elevated Pet Bowl Stand Print & Fit Guide

One solid piece that gets the bowl up off the floor — and keeps the mess with it.

[One Plate](#)[One Piece](#)[Pre-Configured 3MF](#)

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

Bowls sitting flat on the floor mean hunching, spills and a ring of mess to clean up afterwards. This stand fixes all three — and it is one printed part, so there is nothing to assemble and nothing to come loose later.

In the download

File	What it is
cat-bowl-riser.3mf	Start here. One plate, oriented, tested profile and brim already set.
cat-bowl-riser.STL	Raw mesh for your own slicer, or for scaling. Sits deck-up on the plate.

1 · Check your bowl before you print

This is a 13 hour print and the deck opening is a fixed size, so measure first. If your bowl does not match, the fix is a scale factor applied *before* slicing.

The part	
Overall size	200 × 200 × 147 mm
Deck opening	149 mm across
Built around	Boots & Barkley matte stainless dish, 13.2 oz (Target) - rim measures 158 mm / 6.22 in
On the plate	223.19 g PLA · 74.83 m · 13 h 25 m · about \$3.35

Not that bowl? Measure across the outside of your rim and scale X and Y until the opening lands about 9 mm under it — full detail on page 3.

2 • Slice it

- 1 Open `cat-bowl-riser.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, and it carries the support and brim setup with it.
- 3 Confirm your printer and filament, then slice. Using the STL instead? Sit it deck-up on the plate, exactly as it imports, and set the profile on the right to match.

Supports are switched on, and this part does not use any

The 3MF has tree supports on auto at 30 °, but auto finds nothing steep enough here — **the slice produces no support material at all**. Leave the setting alone; it costs nothing and still covers you if you scale or modify the part.

3 • 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	0.12 mm
Nozzle	0.4 mm
Walls	3 loops
Top / bottom	5 / 3 layers
Infill	9 % gyroid

Supports & adhesion	
Supports	Tree, auto
Threshold	30 °
Brim	Inner and outer, 5 mm

Material & plate	
Filament	PLA as sliced · PETG for outdoor use
Nozzle temp	220 °C
Bed temp	60 °C
Plate	200 mm footprint — check yours fits

What it costs you	
Print time	13 h 25 m
Filament	223.19 g · 74.83 m
Rough cost	\$3.35

4 • Before you hit print

- ☐ Bowl measured, and the opening scaled to suit it if needed.
- ☐ The 200 mm footprint plus brim fits your build plate.
- ☐ Sliced preview checked — no support material, and the brim runs inside the opening as well as around the outside.
- ☐ At least **250 g** on the spool — this runs overnight and a run-out at hour eleven is a long way to come back from.

5 • Off the plate

- 1 Let the plate cool completely before you touch it. A 200 mm deck lifted warm is a 200 mm deck that can take a set.
- 2 Flex the plate and lift the stand off, then peel the brim away. There is brim on the inside of the opening as well as around the outside — do not forget the inner ring.
- 3 There is no support material to remove. If your slice produced some, something changed in the profile or the orientation — worth a look before you go further.
- 4 Run a deburring blade or a fingernail around the **inside edge of the opening**. That edge is what the bowl's rim rests on, so anything proud there makes the bowl sit crooked.
- 5 Stand it on a flat surface and press each corner in turn. All four legs should stay down.

★ Give it a wash before it goes into service

It is a feeding station. Warm water and dish soap, and let it dry fully — printed parts hold water in the seam between the deck and the legs.

6 • Putting it to work

- **Drop the bowl in from above.** It hangs on its own rim; nothing clamps or screws down, and it lifts straight back out for washing.
- **Check the wobble on your floor, not on the bench.** Tile grout lines and rug edges are what actually cause a rocking stand.
- **Sliding on hard floors?** Four stick-on felt pads or a bead of silicone under each leg stops it traveling when an enthusiastic eater pushes into it.

7 • Making it yours

- **A different bowl.** Scale **X and Y together** until the opening sits about 9 mm under your bowl's outside rim measurement.
- **A different height.** Scale **Z on its own**. As modeled it stands 147 mm; nothing else has to change, so a shorter cat or a taller dog is one number.
- **Want a name on it?** What downloads here is the plain deck. The version in the photos, with a pet's name repeating around the opening, is something I cut on request — leave a comment on the model page with the name and I will make you one.
- **Print two.** Food and water side by side at the same height is the point.

Where precision meets the printer

Thanks for printing this one. If it earned a permanent spot on your kitchen floor, 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 a bowl this one doesn't match, or want a name cut around the opening? Leave a comment on the model with the rim measurement and the name. That is where the next one starts.

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