

Under-Couch Toy Blocker Print & Fit Guide

Helps stop toys from rolling under the couch.

No Supports

9 in Sections

Vented

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My dog Anna kept losing her toys under the couch, so I designed these to close the gap.

Each section presses in gently between the floor and the front edge of the couch. The curved face flexes, so it compresses a little and stays where you put it. The **diamond cutouts** let air keep moving under the couch, and give a floor HVAC vent under there an outlet.

A section is **9 in long**. A connector slides into the bottom of two sections and joins them, so you can connect as many as you need to span the front of your couch.



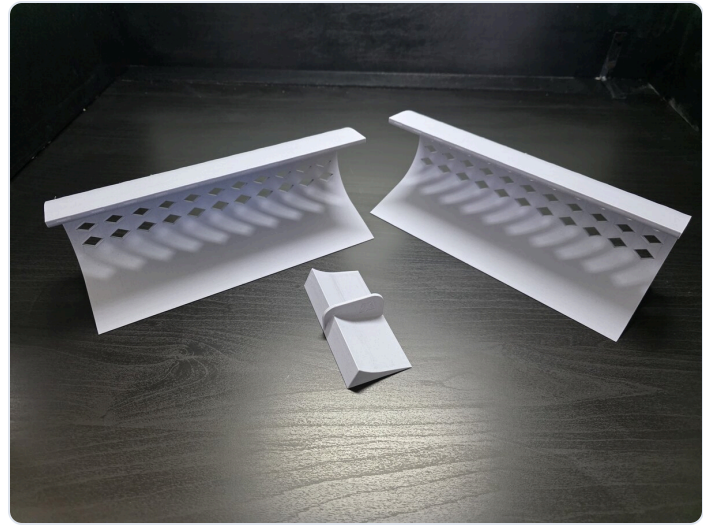
Two sections in place. The ball stops at the couch.

In the download

File	What it is
<code>under-couch-block-all.3mf</code>	Start here. All four parts, one per plate, with the tested profile already set up.
<code>under-couch-block.3mf</code>	One 9 in section. 9 h 14 m.
<code>under-couch-block-connector.3mf</code>	The standard connector. It butts two sections together. 52 m.
<code>under-couch-block-connector-wide.3mf</code>	The wide connector. It spaces two sections 1 in apart. 1 h 2 m.
<code>under-couch-block-test.3mf</code>	A 40 mm slice of a section, for checking the fit before a full print. 1 h 29 m.
Four <code>.stl</code> files	The same four parts as plain meshes, for any slicer.

1 • Check your fit

One section	
Length	229 mm (9 in)
Height	88 mm (about 3.5 in)
Base depth	76 mm (3 in)
Z height needed	229 mm — it prints standing on end
Print time	9 h 14 m
Filament	156.96 g

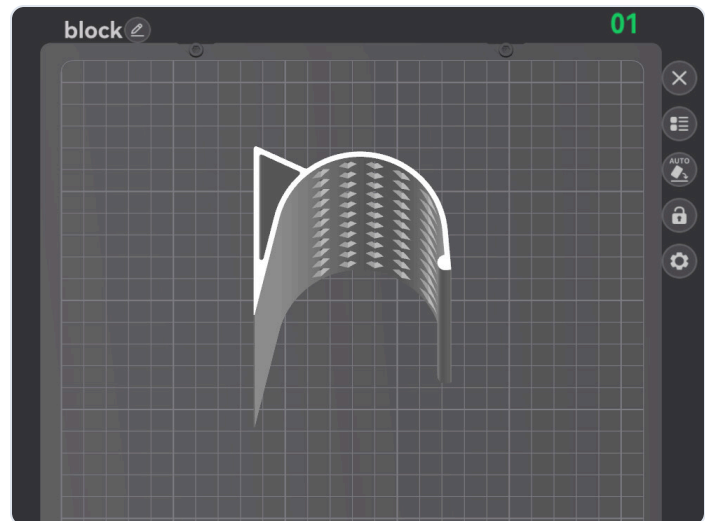


Two sections and a standard connector.

- 1 **Measure the gap** between the floor and the front edge of your couch. The section is made to compress a little, so it suits a gap slightly under its 88 mm height.
- 2 **Print the test piece first.** It is a 40 mm slice of a section. Slide it under the couch to check the fit before you spend nine hours on a full one.
- 3 **Different gap?** Scale the section in your slicer until the test piece fits, then scale the connector **by the same factor** so the two still slide together.

2 • Slice it

- 1 Open `under-couch-block-all.3mf` in Creality Print, or any slicer that imports 3MF project files. When it asks whether to load the project's print settings, **say yes.**
- 2 Each part has its own plate. Print the **block** plate once for every section you need, and one connector plate for every joint.
- 3 **Using the STLs instead?** Stand the section and the test piece on end, lay the connectors flat, and match the settings in section 3.



The block plate: one section, standing on end.

3 • The profile baked into the 3MF

Using your own profile instead? Match these. Sliced for a Creality Hi with a 0.4 mm nozzle.

Quality		Material & plate	
Layer height	0.20 mm	Filament	PLA
First layer	0.20 mm	Nozzle temp	220 °C
Walls	5 loops	Bed temp	65 °C, epoxy resin plate
Top / bottom	5 / 3 layers	Supports	Off
Infill	10 % gyroid	Brim	8 mm , outer only

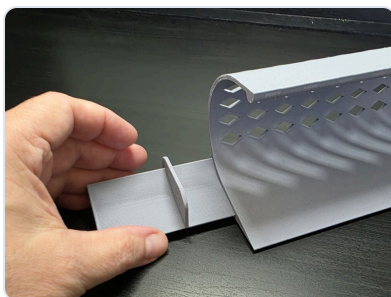
Keep the brim on the section

A section is 229 mm tall on a thin footprint. The 8 mm brim is what holds it to the plate for nine hours, so leave it on.

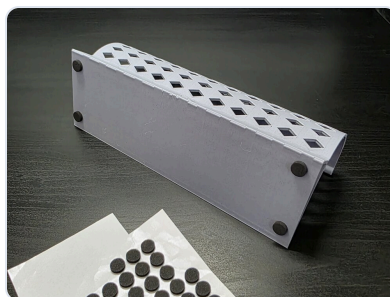
PLA or PET-G?

Mine are PLA. PET-G is a bit more flexible, and it handles warm air better if a heating vent blows under your couch in winter.

4 • Fit it



The connector slides into the bottom of a section.



Optional stick-on rubber feet, one at each corner.

- 1 Let the plate cool, lift each part off and trim away the brim.
- 2 Slide a connector into the bottom of one section, then slide the next section onto the other half. Repeat until the run is as long as the front of your couch.
- 3 Press the run in under the front edge of the couch. It should compress lightly and stay put.
- 4 **If it slides on your floor**, add small stick-on rubber feet (not included) under the base.
- 5 **For a firmer hold**, you could put hook-and-loop tape under the couch and mount a section upside down, with its base against the couch. I have not needed it.

Where precision meets the printer

Thanks for printing this one. If it keeps a few toys out from under your couch, 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

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A note on sharing

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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.

Fitted it under your own couch? Post a make with a photo — I would love to see it in place.

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