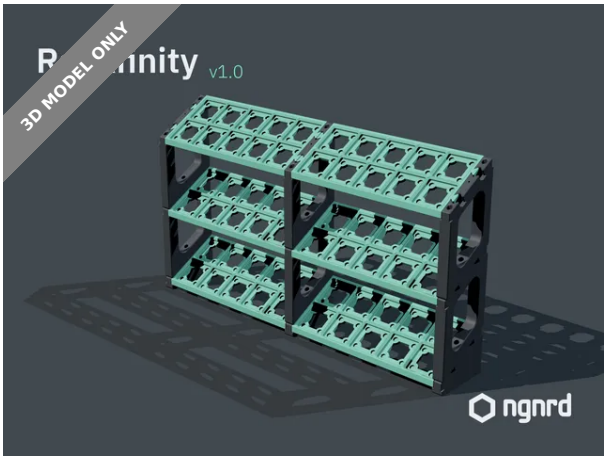


Rackfinity v1.0 Core — tilted Gridfinity shelf

n **ngnrd**

VIEW IN BROWSER

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Summary

Rackfinity tilts every bay 30° toward you: labels and contents stay visible and easy to grab.

Hobby & Makers > Organizers

Tags: shelf organizer storage workshop rack gridfinity

Flat Gridfinity stacks hide labels and eat desk space. Rackfinity tips the bays toward you — plug it together, done, and grow it by bay and by level.

What it is

Rackfinity tilts every bay 30° toward you: labels and contents stay visible and easy to grab. Everything prints without supports — the tilt only appears when you stand it up.

The shelf is made of just a few printed parts:

- **Shelf** — Gridfinity 5 × 2, compatible with classic Gridfinity feet (Gridfinity by Zack Freedman)
- **Side** — carries the shelves, stackable
- **Foot** — bottom side piece of each column
- **Pin** — hex 5.8 mm A/F × 18 mm, joins stacked sides
- **Wall bracket** — optional, for wall mounting

Shelves plug into the sides with a double dovetail. Stacked side pieces can additionally be joined with one M3 screw each (optional, see below). One more bay or one more level: same parts, different counts. Ø 6 × 2 mm magnets in the shelf sockets are optional — most people only fill the cells they actually use.

Printing

Recommendation	
Material	PLA or PETG
Avoid	TPU
Orientation	side upright on its stacking face · pin flat on one hex face · foot, shelf and wall bracket flat
Supports	not needed (sides: bridge of about 50 mm at the window top)
Adhesion	sides: brim of about 5 mm recommended
Layer	0.2 mm · at least 3 walls (sides 4)
Weight approx. (PETG, slicer, 0.2 mm)	shelf 76 g · side 56 g · foot 30 g · wall bracket 7 g

- The sides print upright on their stacking face (the 30° face): 86.6 mm tall on a base only 15 mm wide. A brim of about 5 mm keeps them firmly on the bed.
- The window top of the side is a bridge of about 50 mm — your printer needs to bridge cleanly; fine with a well-tuned profile.
- The pin lies flat on one hex face, the foot flat on its side.
- Print set: NGN-RFY-SET-v1.0_platten.3mf holds 2 shelves, 4 sides, 2 feet, 2 wall brackets and 10 pins on 2 plates (250 × 250 mm), with the brim for the sides already set — about 450 g PETG plus a few grams for the pins (slicer values as in the table, 0.2 mm, standard profile).

- The foot and the side have a Ø 2.5 mm core hole on top for the optional M3 screw. It prints horizontally, so it won't come out perfectly round: drill it to 2.5 mm or tap M3 if needed.
- The fit is intentionally on the forgiving side so it works on less finely calibrated printers too.
- Optional: felt pads under the feet.

Hardware

Part	**Qty**	**Notes**
PETG filament	about 1 spool	enough for the print set
Socket head screw M3 × 8 (DIN 912 / ISO 4762)	4 (optional)	1 per stacking joint, see below
Magnets Ø 6 × 2 mm	optional, up to 40 per shelf	see BOM
Countersunk screw 4 × 50 (masonry) or 4 × 30 / 4 × 35 (wood)	4	wall mounting, 2 per wall bracket
Wall plug 6 × 30	4	masonry / concrete only

Where to buy (examples): screws · wall plugs

Bill of materials

For a shelf **C** bays wide and **R** levels high:

Part	**Qty**
Foot	C + 1
Side	(C + 1) · (R − 1)

Shelf 5 × 2	R · C
Pin 5.8 A/F × 18	2 · (C + 1) · (R − 1)
M3 screw (optional)	(C + 1) · (R − 1)
Magnet Ø 6 × 2 (optional)	at most 40 · R · C

Example 2 × 3 (2 bays wide, 3 levels high): 3 feet · 6 sides · 6 shelves · 12 pins · optionally 6 M3 screws. Overall size approx. 467 × 78 × 259 mm (W × D × H).

Gridfinity bins are not included — print matching bins separately.

M3 screws (optional)

On top of the pins, every stacking joint can be secured with **one M3 screw**: it goes in through the window of the upper side, through its Ø 3.6 hole at the bottom, and into the Ø 2.5 core hole of the part below (side or foot).

- Recommended: **M3 × 8 socket head** (ISO 4762 / DIN 912) — fits both joints.
- Derived from the CAD: 1.6 mm floor under the screw head, core hole about 8.5 mm deep in the foot and 10 mm in the side. An M3 × 8 engages about 6.4 mm and stays about 2 mm clear of the hole bottom in the foot.
- M3 × 10 only fits between two sides; in the foot it bottoms out.

Wall mounting (optional)

Two countersunk screws per wall bracket:

Surface	**Screw**	**Notes**
Masonry / concrete	4 × 50	Ø 6 mm wall plug (e.g. 6 × 30), drill Ø 6, depth ≥ 40 mm
Wood / board ≥ 15 mm	4 × 30	pre-drill chipboard Ø 2.5

Wood / board ≥ 19 mm	4 × 35	pre-drill chipboard Ø 2.5

Series

Rackfinity is a kit: Core now, more sizes and shelf variants to follow on the same side system.

Changes

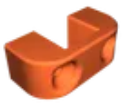
v1.0 (2026-11-01) — first public release: shelf 5 × 2, side, foot, hex pin 5.8 × 18 and wall bracket; stacking joints can optionally be screwed with M3.

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Model files



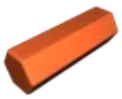
ngn-rfy-wall-v10.3mf



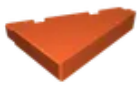
ngn-rfy-shlf-5x2-v10.3mf



ngn-rfy-side-v10.3mf



ngn-rfy-pin-v10.3mf



ngn-rfy-foot-v10.3mf



ngn-rfy-set-v10_platten.3mf

Other files

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katalog-de.pdf

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