

Gridfinity Rugged Case "Light" R3 - NEW SIZES (parametric)



suit

[VIEW IN BROWSER](#)

updated 3. 11. 2024 | published 3. 11. 2024

Summary

A resource friendly and optimized rugged box for gridfinty bins

[Hobby & Makers](#) > [Organizers](#)

Tags: [prusa](#) [parametric](#) [box](#) [case](#) [creality](#) [ender](#) [grid](#) [rugged](#) [nosupports](#) [voron](#) [ratrig](#) [5x4](#) [vorondesign](#) [bambulab](#) [5x4gridfinity](#) [grindfinty](#)

I really like the Gridfinity Case by Aiko since but the the model is extremely resource hungry - without any sacrifice in functionality or robustness i shaved down everything to yield about 33 % savings and added a list of other cool features to this gridfinity box.

Key Features

- top and bottom Grid (no parts spilling out)
- resource friendly, yet rugged
- stands upright in 5 orientations
- 12 mm label slot in the front (9 mm for the 3 U version)

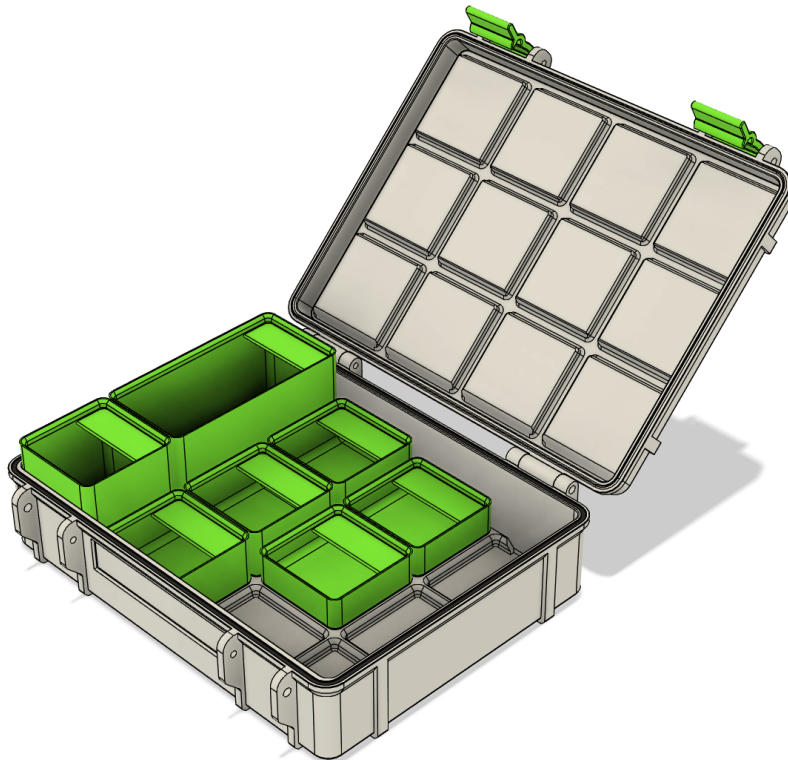
Size availability (parametric source)

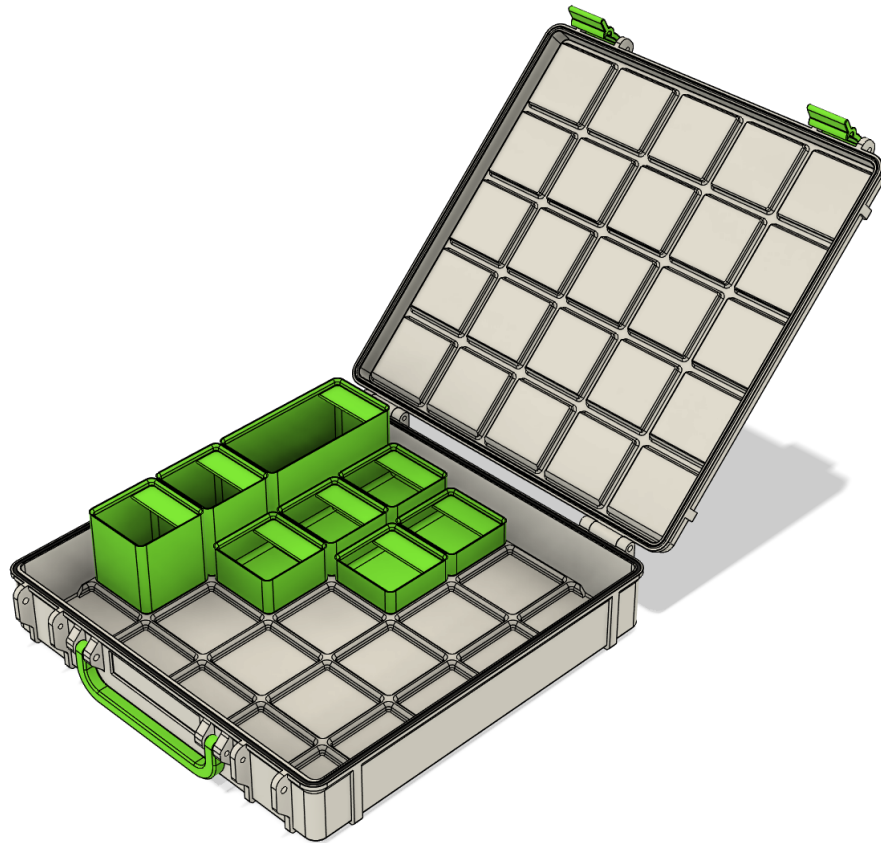
The source file parametric and allows for various different sizes and shapes. For experienced users in Fusion the file is fairly easy to handle, though due to limitations in Fusion (lacking conditions on features especially) changing certain parameters will break a few bits here and there. Especially edge cases need to be handled manually (especially the label slot or the handle for example). Therefore i won't release the source publicly for now.

The following variants are tested and exported in various heights ranging from 3U up to 21U in common factors.

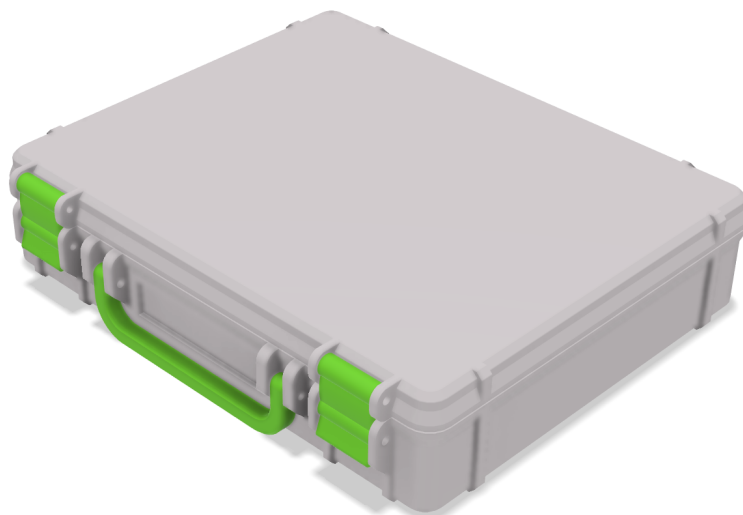
- **4x3U**
- **5x5U**
- **5x6U**
- **6x5U**

If you are interested in other sizes, drop me a line.





for your convinience i've included various logos if you want to store your printer accessories or tools in the box - if you miss a logo, just drop me a line





BOM

- 6x **M3x30** screws
- 2x **M3x16** or 2x M3x18 screws
- PETG or ABS recommended, PLA is OK aswell
- TPU (optional)

(affiliate Links)

Printing

I've included print Profiles for Bambu Lab Printers for all sizes that will fit on their machines. For other sizes, use the following rough guidelines (0,4 mm nozzle).

- Lid and Base: flat on build plate, 3 walls 10 % infill
- Latches: upright 3 walls, concentric top/bottom
- Handle: flat on build plate; 4 walls, 25 % infill; concentric top/bottom
- Seal: flexible Filament; flat on build plate; 3 walls concentric top/bottom

Logo on the lid

The logos in the lid are provided as a separate multipart file. To use them, follow these easy steps to make adjustments in your slicer software. This guide applies to PrusaSlicer, Bambu Studio, or OrcaSlicer:

1. **Open the file in your slicer** as "a single object with multiple parts."
2. **In the object tree, delete any logos you don't need**, as well as the "Dummy (delete me)" body. Only the lid and the logos you want to keep should remain.
3. **Change the type of the logo** from "part" to "modifier."
4. **Orient the part** so that the top side with the logo is facing the build plate. The "Auto Orient" function should simplify this step.
5. **Set the filament or color of the logo** to your desired color.
6. Remember that the logos are **0.6 mm high**. This design is optimized for a multiple of a 0.2 mm layer height. If you use a different layer height, you may need to **rescale the logo body** to match your preferred height.
7. If you don't have a multi-color-capable printer, you can change the logo type to **"negative part."** This way, the printer will omit the logo. Be aware that for logos with a larger surface area, this may require supports.

Assembly

- longer screws in the hinges or latches (from the outside)
- shorter for the handle (from the inside)

Changelog

2024-11-03 R3 v38:

- added 2 new sizes 5x5 and 6x5

2024-11-01 R3 v34:

- lids with logos added (new logos, 2 different sizes)

2024-11-01 R3 v31:

- added experimental 5x5 version in 5 and 6U

2024-10-30 R3 v26:

- complete overhaul with fully parametric base file in the background

- shaved off even more material and print time, prints now roughly 5 % faster (~ 15 minutes)
- compatible with existing boxes - but be aware that the geometry slightly changed, your inner monk might be a bit triggered, if you combine an old lid with a new box or vice versa
- virtually an size an variant possible
- 5x4 and 4x3 are added for now
- if you miss a variant, drop me a line

2024-06-22 R1 v35:

- added tool company logos: Bosch, DeWalt, Dremel, Makita, Milwaukee, Ryobi, Stanley & Stihl

2024-06-10 R1 v34:

- added an Anycubic lid

2024-05-18 R1 v31:

- added a 9U version

2024-05-18 R1 v33:

- added a 12U version
- slight geometry change to the label slot to make it easier to print (thx to [Markurian](#) for the input)
- parts are fully compatible

This remix is based on



Gridfinity 5x4 rugged case

by Akio



Rugged Gridfinity Box (Parametric)

by PeterDesigns



Gridfinity Storage Box by Pred (now parametric)

by Pred



Rugged Box (Parametric)

by Whity

Model files



R3 - print profiles (Bambu Studio)

3 files

rugged-box-light-r3-4x3u-v43-profile.3mf

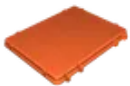
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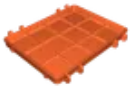


R3 - 4x3U

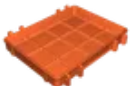
14 files



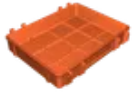
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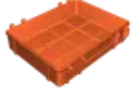
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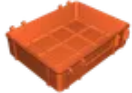
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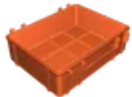
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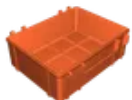
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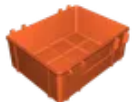
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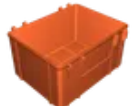
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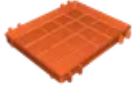


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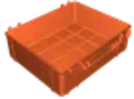


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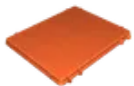
14 files



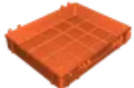
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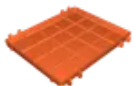
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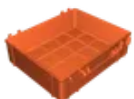
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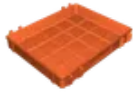
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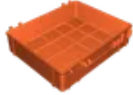
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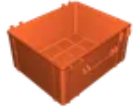
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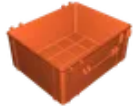
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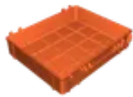
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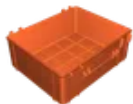
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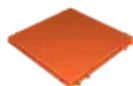


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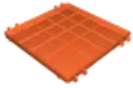


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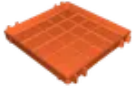
14 files



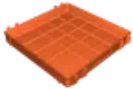
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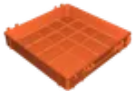
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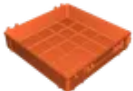
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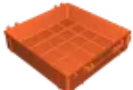
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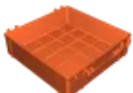
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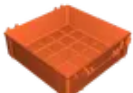
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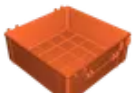
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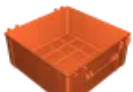
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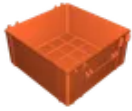
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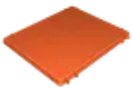


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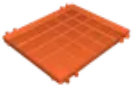


R3 - 6x5U

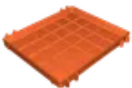
14 files



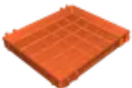
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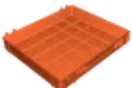
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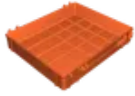
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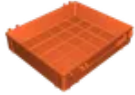
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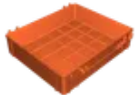
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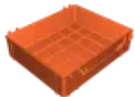
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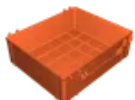
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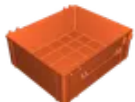
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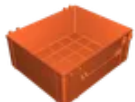
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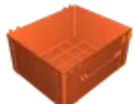
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rugged-box-light-r3-base-6x5x18u-v38.stl



rugged-box-light-r3-base-6x5x21u-v38.stl



R3 - common parts

8 files



rugged-box-light-r3-latch-3u-v26.stl



rugged-box-light-r3-latch-4u-v26.stl



rugged-box-light-r3-handle-5u-v26.stl



rugged-box-light-r3-handle-6u-v38.stl



rugged-box-light-r3-gasket-4x3u-v26.stl



rugged-box-light-r3-gasket-5x4u-v26.stl



rugged-box-light-r3-gasket-5x5u-v38.stl



rugged-box-light-r3-gasket-6x5u-v38.stl



R3 - logo lids

2 files



rugged-box-light-r3-logo-lid-4x3u-v11.3mf



rugged-box-light-r3-logo-lid-5x4u-v11.3mf



R1 - 5x4U - legacy files

9 files



rugged-box-light-lid-plain-v26.3mf



rugged-box-light-gasket-v26.3mf



rugged-box-light-handle-v26.3mf



rugged-box-light-latch-v26.3mf

☐ print 2x



rugged-box-light-base-6u-v33.3mf



rugged-box-light-base-9u-v33.3mf



rugged-box-light-base-12u-v33.3mf



rugged-box-light-lid-with-logos-3d-printing-v34.3mf

☐ multipart file with all logos



rugged-box-light-lid-with-logos-tool-companies-v35.3mf

☐ multipart file with all logos

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