Printables by JOSEF PRUSA

Rugged Box (Parametric)

Whity

VIEW IN BROWSER

updated 22. 7. 2026 | published 22. 7. 2026

Summary

Fully parameterized rugged tool box

Hobby & Makers > Organizers

Tags: parametric water box organizer case storage storagebox toolbox seal organize ruggedcase rugged watertight parameterized parameterizable

NO, THERE IS NO WAY TO GET A LICENSE TO SELL THE BOX COMMERCIALLY.
MY DESIGNS WILL ALWAYS BE FREE FOR NON-COMMERCIAL USE ONLY.
PLEASE STOP ASKING!

The design is based on the "Tool box parametric" by Yanev and provides some more options to parameterize it in Fusion 360.

Do you like parametric models? Check out my latest ones:

- Threaded Screw Fidget Toy 01
- Round Container 02 - Grooves
- Round Container 01 - Knurled
- Magnetic Tea Bag Dispenser

- Customizable Can Dispenser

Support my work

For non-Prusa parts and filaments, check out 3DJake (International, UK, Germany, France).
I'll get a small cut of any order you fulfil using these links (at **no** additional cost for you ☺).

To support my work directly, you can buy me a coffee.

If you want to order a Prusa printer and earn some Prusameters (I will also get some), you can use my referral code "**@Whity**" at checkout or click one of the following links
(the code only works for the first order of each printer model):
| CORE One | CORE One Kit | MK4 | MK4 Kit | MINI+ | MINI+ Kit | XL | SL1S | SL1S+CW1S |

Planning to buy a professional fiber or UV laser? Check out ComMarker and get a discount on your first order (must be a new account and the first order placed within 30d. Referral code is part of the link).

Also check out my other models.

Remixes

Some of my own remixes:

- Modular Slots - Shallow height (single row version)
- Modular Slots - Shallow height (multi row version)
- Modular Slots - Normal height
- Horizontal Inserts
- GoPro 9/10/11 Case
- GoPro 8 Case
- Brother TZe Label Tape Cartridges Box
- 18650 Battery Storage Box for 50 Cells
- Box for Drill Handle and Collets
- Box for Radius Gauges
- Revopoint Mini Case
- Fluke Multimeter Case
- Docreate Gear30 Spot Welder
- GEPRC TinyGO 4K Drone
- DMT 6" Diamond Whetstones & Holder Storage Box
- Filament Swatches Storage Box
- TOOLTOP ET693C Thermal Camera

Important

The current STL files in the download section are all V1 only. If you want the newer design, use the Fusion 360 file and customize it as needed (that's recommended anyway, as there are many parameters to adjust)

Screws

I like these screws which have a nice round head:
Allen hex socket button head screw

Or, if you want no screw head at all, which I personally like even more:
Hex socket set screws

Note: I recommend the stainless steel ones. The blackened ones are oily and have to be cleaned.

Updates

24.08.2022:

- V2 release:
  - The front and back ribs are changed a bit to not have the full depth for the full height (see V2 details below). Looks much nicer like this (but V1 is still available)
    - The offset of the chamfer for each of them is configurable individually (...RibChamferOffset Parameters). This way you can make the latch easier to open by lowering the offset, or make it less likely to open by accident by increasing the offset and cover the latch completely.
  - If you wish you can now increase the size of the hinge to make it more sturdy (but I would not recommend it. It's more a hack...)
  - The width of the outer parts of each hinge can now be set to make it more sturdy (only useful when using screws longer than 25 or 30 mm)

18.08.2022:

- Added “FLUKE Edition”
  - **28.08.2022:** Moved to a separate model: https://www.printables.com/model/267524-fluke-rugged-case-with-foam-insert

Changes made

- All parts in one F360 file
- Contains a seal to print in TPU (will not make it 100% water tight)

- Additional parameters:
  - The position of the latches and ribs (distance from the sides)
  - The diameter and length of the screw (to support different sizes / latch widths)
  - The inner chamfer size
  - Separate parameters for the widths of the ribs on the side and for the hinges/latches
  - Several tolerances to fine tune it for your printer

To assemble it you need 6 screws in total. For the provided STL files you will find the correct size in the folder names.

V2 Release

Here you see the main design change of the second version (V1 on the left, V2 on the right):

This remix is based on

Tool box parametric

by Yanev

Model files

Fusion 360 files 2 files

rugged-box-parametric-v2.f3d

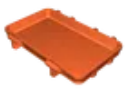
Go to "MODIFY" => "Change Parameters" to customize it

rugged-box-parametric-v1.f3d

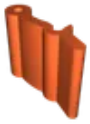
Go to "MODIFY" => "Change Parameters" to customize it

Size 120 x 70 x 40 (Screw M3x30) (V1 Design!) 4 files

rugged-box-box-120x70x40.stl



rugged-box-lid-120x70x40.stl



rugged-box-latch-120x70x40.stl

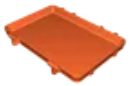
rugged-box-seal-120x70x40.stl

OPTIONAL

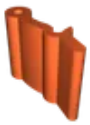
Size 150 x 100 x 50 (Screw M3x30) (V1 Design!)

4 files

rugged-box-box-150x100x50.stl



rugged-box-lid-150x100x50.stl



rugged-box-latch-150x100x50.stl

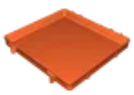
rugged-box-seal-150x100x50.stl

OPTIONAL

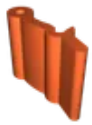
Size 200 x 185 x 60 (Screw M3x30) (V1 Design!)

4 files

rugged-box-box-200x185x60.stl



rugged-box-lid-200x185x60.stl



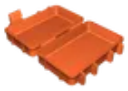
rugged-box-latch-200x185x60.stl

rugged-box-seal-200x185x60.stl

OPTIONAL

STEP files 2 files

rugged-box-parametric-v2.step



rugged-box-parametric-v1.step

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