



Single Spool 4L Drybox



Swoosh

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Summary

4L filament drybox Background The idea was to create a drybox with as few modifications to the food container as...

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4L filament drybox Background

The idea was to create a drybox with as few modifications to the food container as needed where the spool can be changed with ease.

Idea and Inspiration

This is a collection of things I've found to work well together and adopted them for a nice all-in-one set.

The base was inspired by mars gizmos design:

<https://www.myminifactory.com/de/object/3d-print-marsgizmo-filament-bunker-131183>

The spacer is a remix of this wedge:

<https://www.thingiverse.com/thing:4647864>

The outlet screws used:

<https://www.thingiverse.com/thing:4667797>

Parts to print

What you need:

- Print the Filament Base first (without supports) - **scale the model down to 10%**
- Print 2 Roller

Print one Silica Lid and check if it snaps to the base

Depending on the filament you may need to resize it in small (0,5 - 1,5%) steps Optional but recommended:

Print the screws linked above

Depending on the filament I would recommend to scale the nut up a bit so the thread goes easy.

Print one Spacer for the temp-sensor/hydrometer

For bigger spools I'd recommend the original wedge above as it will push the sides better to fit bigger spools. ### Additional parts needed

1 Drybox

- 1 Hydrometer (optional)
- 4 608 ZZ Bearings
- 1 Compression Fitting (optional) Part list on Amazon w. affiliate links:

Dryboxes:

[amazon.de/gp/product/B08JTH2NZJ/ref=as_li_tl?](https://amazon.de/gp/product/B08JTH2NZJ/ref=as_li_tl?ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B08JTH2NZJ)

[ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B08JTH2NZJ](https://amazon.de/gp/product/B08JTH2NZJ/ref=as_li_tl?ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B08JTH2NZJ)

Hydrometer:

[www.amazon.de/gp/product/B07JDSHD4Z/ref=as_li_tl?](https://www.amazon.de/gp/product/B07JDSHD4Z/ref=as_li_tl?ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B07JDSHD4Z)

[ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B07JDSHD4Z](https://www.amazon.de/gp/product/B07JDSHD4Z/ref=as_li_tl?ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B07JDSHD4Z)

Bearings:

[amazon.de/gp/product/B08K936Y1Z/ref=as_li_tl?](https://amazon.de/gp/product/B08K936Y1Z/ref=as_li_tl?ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B08K936Y1Z)

[ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B08K936Y1Z](https://amazon.de/gp/product/B08K936Y1Z/ref=as_li_tl?ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B08K936Y1Z)

Compression-Fittings:

[amazon.de/gp/product/B07P3BC4GQ/ref=as_li_tl?](https://amazon.de/gp/product/B07P3BC4GQ/ref=as_li_tl?ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B07P3BC4GQ)

[ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B07P3BC4GQ](https://amazon.de/gp/product/B07P3BC4GQ/ref=as_li_tl?ie=UTF8&tag=swooshy-21&camp=1638&creative=6742&linkCode=as2&creativeASIN=B07P3BC4GQ)

Assembly

- Insert 2 Bearings into each roller
- Mount both roller to the base

- Fill the silica box in the base (approx 40g until full - way more than enough for 4L)
- Add the lid and set the whole base into the container
- Insert the hydrometer into the spacer-wedge

Install in front of the box where the grip is Optional:

Drill 10mm hole where you want to guide your filament outside

- Install the printed screw
- Screw in the compression fitting
- You might also hotglue a small (6x3) magnet from the inside of the lid to attach a filament swatch from the outside :)

Print Settings

Rafts:

No

Supports:

No

Resolution:

0.2

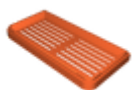
Filament: 3DJake PETG black

Category: 3D Printer Accessories

Model files



spacer.stl



silica_lid.stl



filament_base_v7.stl



roller.stl

[Find source .stl files on Thingiverse.com](#)

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