

3D MODEL ONLY



PET BOTTLE CANISTER KIT

**Peter H**[VIEW IN BROWSER](#)

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Summary

A simple clear canister/container with a lid, which can be made in an almost endless variety of shapes.

[Household](#) > [Kitchen](#)

Tags: [bottle](#) [water](#) [pet](#) [container](#) [lid](#) [kit](#) [soda](#)
[project](#) [clear](#) [canister](#)

This is one of three projects designed to reuse most of a discarded PET bottle. The others may be found at the following links:

[TINY FUNNEL ADAPTERS](#)[GIFT BOX KIT](#)



CANISTER KIT DESCRIPTION

This kit comprises a rim (strengthenener) and lid to turn almost any shape of PET bottle into a delightful canister for storing an endless variety of objects. It is food safe and the lid is a snug fit to ensure it is insect proof, but it is not airtight.

Just the addition of the rim to the cut bottle brings it to a whole new level of rigidity and purpose!

Construction is quite straight forward, and a little bit of patience in sizing the rim will be rewarded with a very neat finish.

SELECTING THE BOTTLE

Any bottle will do, as long as it has a section with parallel sides. I've used a 750mm soda bottle in this example because I like the shape of the lower third. All of the places marked with tape would be suitable.



MARKING THE CUT

The more care you take with the cut, the easier it will be to make a nicely fitting product. Wrap some masking tape around roughly where you want to make the cut - this will make it easier to mark, and will help to keep the edge a little stiffer when you are cutting it.

Find an object that's about the height of where you want to cut, and use a felt pen to mark the cut line. Cut carefully using scissors for a nice neat finish.



SIZING THE RIM

You are going to need a little patience with this as the success of the design depends on a very accurate fit. Of course a little drop of superglue will fix a little sloppiness, but it's very satisfying when it fits properly. Because of all the flex in the material, the easiest way to find the diameter is to carefully measure the circumference at the cut line BEFORE you slice the bottle. I've found the most accurate way of doing that is to use a strip of paper, mark the overlap and measure it on the flat.

You can then easily calculate the diameter [using this online calculator](#).

For reference, the diameter of the rim in the attached file is: 74.3mm

Now you can go to the attached file (in the link in the fine print on the downloads page) and change the #BOTTLE_DIAMETER dimension to create your own file, (see note below) OR if you wish you can scale it to suit yourself in your slicer. Note if you choose to scale it, the tolerances are very fine and it may not work on a smaller dimension - a larger one will be fine, you'll probably have to rely on glue to keep it in place.

TEST FIRST

I usually stop the first print after a few millimetres of gap are visible to measure and adjust to the final dimension. (I did mention this was fiddly!)

PRINTING

I have printed these in both PLA and PETG and have no preference. No supports are necessary but check that the bridging in the handle recess is running in the shortest direction. If it isn't, in Prusa Slicer go to Print Settings>Infill>Advanced and set the Bridging Angle to 90°.

I printed these with standard Prusa Slicer Settings .2mm QUALITY and a 0.4mm nozzle.

USING ONSHAPE.

Finding the file! - Click on the "Download" button and you will find the download file in small print coloured light grey below the Model files.

Model files

↓ ALL MODEL FILES (2 MB)



Canister Reinforcing Rim.stl

↓
622 kB

uploaded
21. 3. 2022



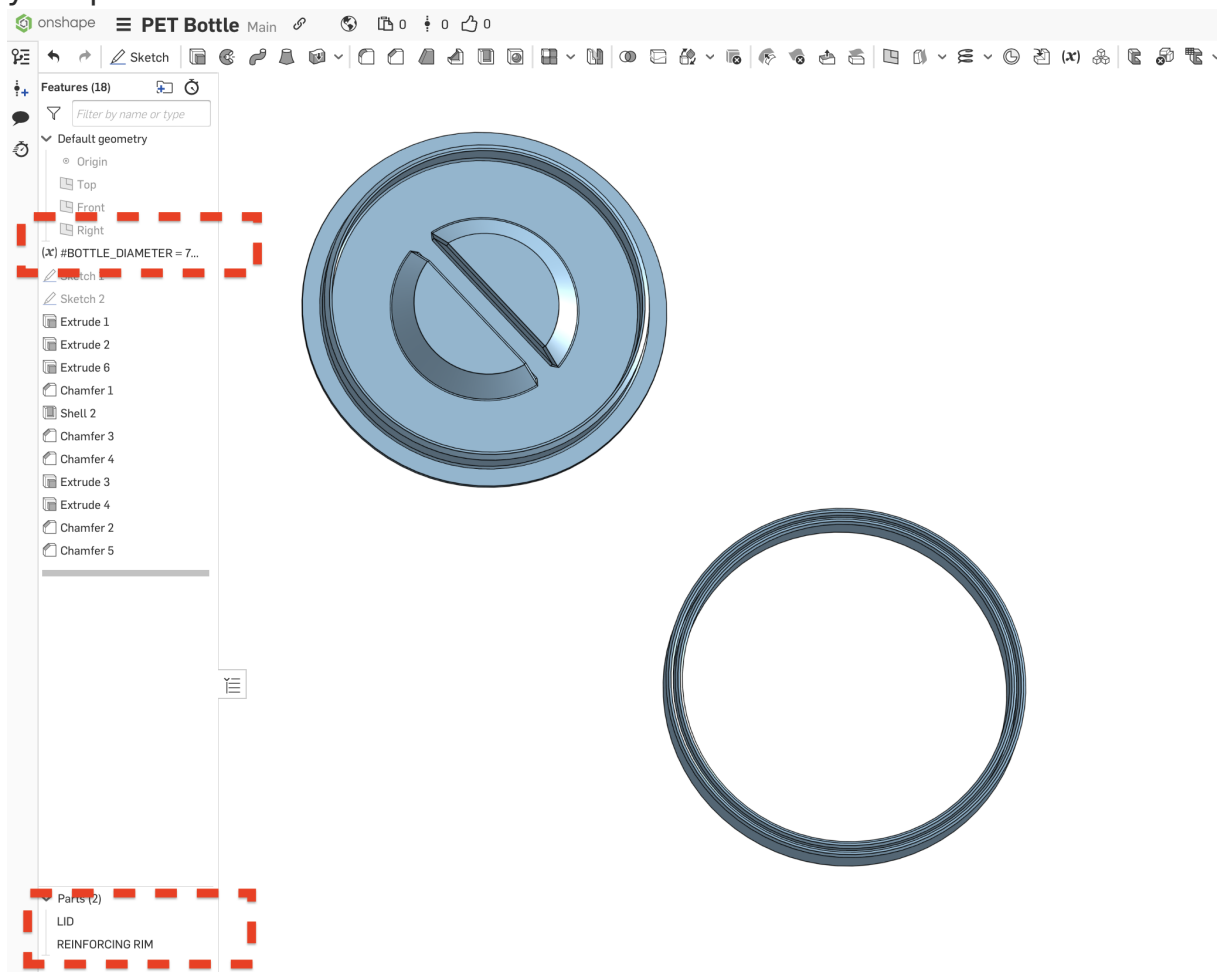
Canister Lid.stl

↓
1 MB

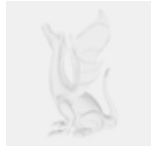
uploaded
21. 3. 2022

[Link to the source model files](#)

Using Onshape is easy - open the attached link, and double-click on the #BOTTLE_DIAMETER parameter to change it. “Enter” to save your change. Right click on the part name in the bottom left of the screen to bring up the menu - choose “Export” and you are pretty much ready to download your personal STL.



This remix is based on



Onshape

Model files



canister-reinforcing-rim.stl



canister-lid.stl

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

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