



Adjustable Bearing Bottle Cutter

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VIEW IN BROWSER

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Summary

Bottle cutter using a pair of F695-2rs bearings. Sharpened with a piece of sandpaper.

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Tags: [filament](#) [recycle](#)

Update 12/20/2022: Updated model here: [Plastic Bottle Stringifier by aamott](#)

The biggest struggle for me when I decided I wanted to try recycling bottles into filament was figuring out how to cut bottles into consistent widths. After I saw a video using bearings to cut the bottles, it was only a matter of time. Unfortunately, I got beat to it!

Here is the repository and work from Reiten996 - <https://github.com/Reiten966/Polyformer>

I remixed Reiten996's design to fit F695-2rs bearings I already had. The chunky handle is easier to hold. Still, I intend to keep improving his design. Right now, his design is adjusted by a screw in the bottom, which I modified a bit to hold an m3 nut. I added a wedge that fits on the side and pushes the sliding gauge up to replace the one underneath. It should be easier to adjust.

Sharpen the bearings by rubbing face-down on a piece of sandpaper.

Additional parts:

- 2 F695-2RS bearings
- 3 M3 screws, 6mm minimum, up to 15mm
- 1 m3 nut
- 1 6mm rod or screw

Future Improvements

- Instead of an adjusting screw, use different size plates under the bearing holder.
- Add a chamfer around the edges. The elephant's foot can get sharp.

Note:

The body is the only part that requires supports. You may want to print it in PLA since some of the supports are hard to reach, but if your printer bridges well, you might not need supports anywhere.

Model files



wedge.stl



body.stl



bottle_cutter_-_f695_bearings.f3d



cutter.stl



sliding_gauge.stl



bottle_holder.stl



bottle_cutter_-_f695_bearings.3mf

[Find source .stl files on Thingiverse.com](https://www.thingiverse.com)

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