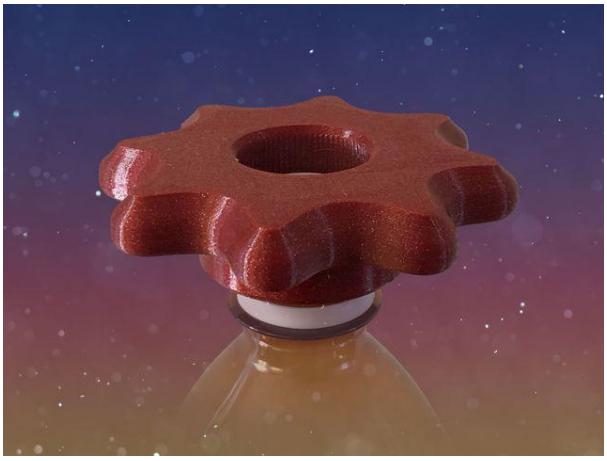


Bottle Opener for the Elderly or People with Disabilities

LuckyResistor

VIEW IN BROWSER

updated 21. 12. 2022 | published 21. 12. 2022

Summary

This is my design for a bottle opener. Works best with caps with 72 teeth, 26, 28 and 30mm. Other sizes available.

3.71 hrs	1 pcs	0.20 mm	0.40 mm	PET	38 g	Prusa MK3/S/S+

Household > Kitchen

Tags: opener bottle water tool open lid cap screw aid helper disability elderly sizes disabilityaid

Older people often have trouble opening plastic bottles. Also, people with gout or other disabilities lack the strength to turn the small caps independently. The reason is the small diameter of the caps, which requires a strong grip with just two fingers.

Various helper tools exist, assisting this task by increasing the leverage. A common problem with these tools is the static design. So if the

manufacturer changes the bottle cap size, they do not grip properly anymore.

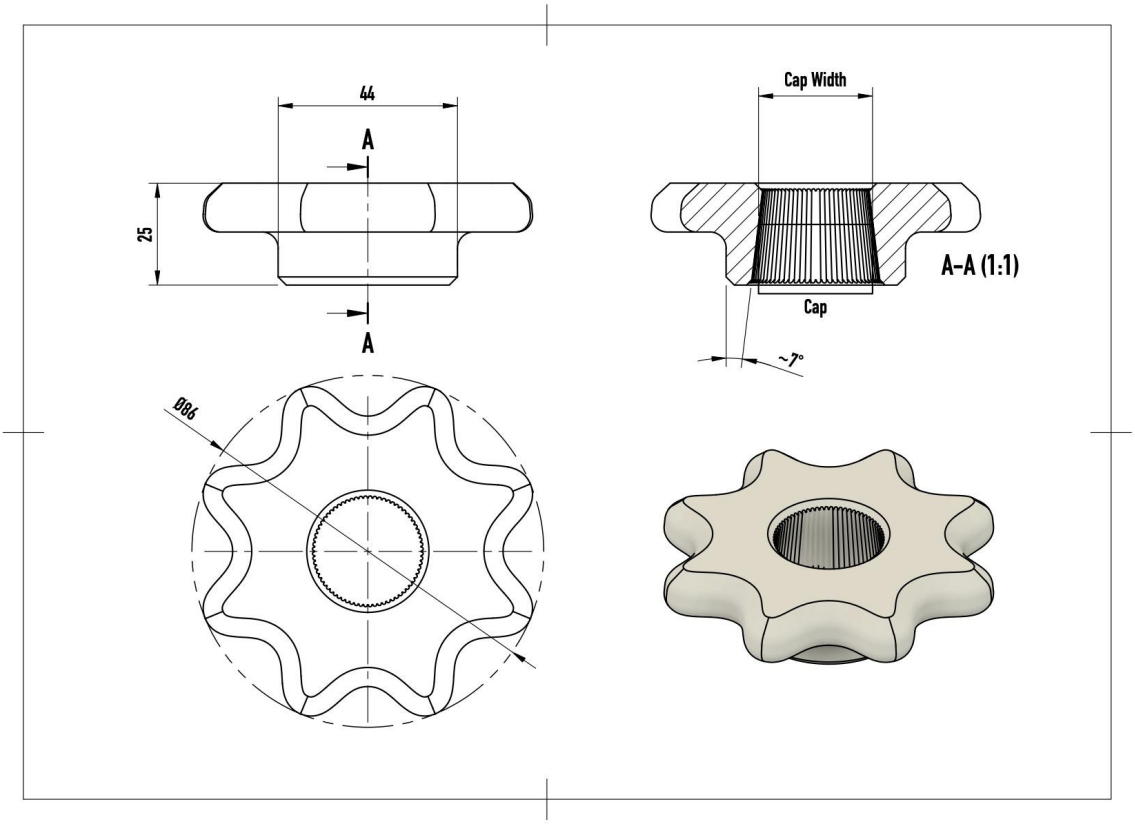
Update 2022-12-21: Updated the project and its description. Added more sizes and model formats. Added catalogue.

How to Print the Bottle Opener

Print the bottle opener with the handle side on the printer bed. In the file section, you will find a PrusaSlicer example project. Use this as a good base for your settings, or check the table below:

Nozzle Size:	**0.4mm**
Layer Height:	No limitations yet should align with the model height.
Filament Materials:	**PETG**, or ASA
Perimeters:	**Four** perimeters!
Infill:	30% infill.
Prusa Slicer Profile:	“0.2mm Quality”

Dimensions



The model file name has this format:

LR2142-<cap diameter>-L<has label>.3mf

Cap Diameter

This is the diameter of the cap in mm. If you look at the drawing, if you print a model with a given cap size, the cap will enter 2⁄3 of the bottle opener. The same opener will work with caps one millimetre larger or smaller.

Has Label

For each size, there is a variant with the size of the opener on top. For the best usability, I recommend printing the models in different colours. For the blind, the engraved label can be easily read, saving unnecessary trial and error.

Catalogue PDF

In the file section, you will find a catalogue PDF with a complete overview of all dimensions. This catalogue also contains handy tables where you can easily look up all models based on a single parameter.

Each model in the catalogue is shown with an image, all parameters and the corresponding model file name. So, before you despair of finding the right model, download the catalogue and search for the model's name there.

Similar Designs

I created additional star shapes that match this design:

Check out my other designs

Photos

The cover image on this project is printed on an Original Prusa i3 MK3S+, using Prusament PETG Carmine Red Transparent.

Conclusion

I hope this design helped you or your relative open bottles more easily. If you found it useful, please rate it and upload photos of your prints.

Happy Printing!

Model files

PrusaSlicer Project 1 file

- **lr2142-28-example-print.3mf**

Model Files (3MF) 18 files

- **lr2142-24-lyes.3mf**
- **lr2142-24-lno.3mf**
- **lr2142-25-lyes.3mf**
- **lr2142-25-lno.3mf**
- **lr2142-26-lyes.3mf**
- **lr2142-26-lno.3mf**
- **lr2142-27-lyes.3mf**
- **lr2142-27-lno.3mf**
- **lr2142-28-lyes.3mf**
- **lr2142-28-lno.3mf**
- **lr2142-29-lyes.3mf**
- **lr2142-29-lno.3mf**

lr2142-30-lyes.3mf

lr2142-30-lno.3mf

lr2142-31-lyes.3mf

lr2142-31-lno.3mf

lr2142-32-lyes.3mf

lr2142-32-lno.3mf

Model Files (STL) 18 files

lr2142-28-lno.stl

lr2142-26-lyes.stl

lr2142-31-lyes.stl

lr2142-30-lno.stl

lr2142-31-lno.stl

lr2142-24-lyes.stl

lr2142-25-lno.stl

lr2142-32-lno.stl

lr2142-29-lyes.stl

lr2142-32-lyes.stl

lr2142-29-lno.stl

lr2142-27-lyes.stl

lr2142-25-lyes.stl

lr2142-26-lno.stl

lr2142-30-lyes.stl

lr2142-27-lno.stl

lr2142-24-lno.stl

lr2142-28-lyes.stl

Print files

lr2142-28-example-print_02mm_petg_mk3s_3h42m.gcode

PET 0.40 mm 0.20 mm 3.71 hrs 38 g Prusa MK3/S/S+

Other files

lr2142-catalog.pdf

License

Attribution-ShareAlike

✖ | Sharing without ATTRIBUTION
✔ | Remix Culture allowed
✔ | Commercial Use
✔ | Free Cultural Works
✔ | Meets Open Definition