**Title**

Bottle Opener

**Subtitle**

A tool to open screw on caps up to 50 mm in diameter.

## Device Specifications

**Stage:** Recently Added

**Designer:** Makers Making Change

**Material Cost:** $0 - $10

**Disability Type:** Mobility / Physical

**Capabilities Needed:** 3D Printing

**Usage:**

* Aids for Daily Living (ADL)
* Mobility

**Difficulty:** Beginner

**Time to Complete:** 1-4hr

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## Device Details

### Overview

The Bottle Opener is a simple, low-cost, 3D-printable handheld tool to help those with arthritis, limited finger dexterity or other related disabilities open or close plastic screw-on caps on various beverage bottles, cleaning products, condiments. The bottle opener allows users to remove or replace the lids of these jugs with a small squeeze on a large, rounded gripping surface. The Bottle Opener has several modified versions to open different sizes of containers. The different sizes are named by the approximate diameter of the caps they can open in millimeters.

### Usage

Slide the toothed gripping surface on top of the lid of the container, then while squeezing the handle to grip the lid, twist either the container or the device to remove or screw on the lid.

### Cost

The cost of this device includes only the filament used to 3D print the device/devices. Each device requires slightly over $1 CAD worth of PLA filament.

### Build Instructions

This device consists of a single 3d printed part. The necessary files and 3D printing instructions are provided in the linked GitHub repository.

#### Skills Required

* **3D Printing**

#### Time Required

* **3D Printing:** ~3.5 hours

#### 3D Printing

Refer to the Large Bottle Opener 3D Printing Guide.

***Sizing***

There are five different sizes of Bottle Openers to suit different size caps on bottles and containers.

|  |  |  |  |
| --- | --- | --- | --- |
| **Bottle Opener Version** | **Compatible Diameter of Caps** | **Examples of compatible Bottles and Containers (May vary between brands)** | **Image Example of compatible Bottles** |
| Bottle Opener 30 | 28 – 30 mm | * Pop bottles of all sizes (355 mL to 2 L) * Bottled Water of all sizes (355 mL to 2 L) * Milk Carton 2 L * Juice Carton 2 L | A picture containing wall, indoor  Description automatically generated |
| Bottle Opener 35 | 33 – 36 mm | * Juice Jug (Some brands) 1.89 L * Ketchup Bottle 1 L * Juice Carton 900 mL | A picture containing red  Description automatically generated |
| Bottle Opener 40 | 38 – 41 mm | * Sports Drink 591 mL * Sports Drink 950 mL * Juice Bottle 473 mL * Iced Tea Bottle 473 mL * Milk Bottle 473 mL * Milk Jug 2 L * Milk Jug 4 L * Kefir Bottle 1 L | A picture containing light  Description automatically generated |
| Bottle Opener 45 | 43 – 46 mm | * Juice Jug 1.46 L * Juice Jug (Some Brands) 1.89 L * Juice Jug 945 mL | A picture containing indoor  Description automatically generated |
| Bottle Opener 50 | 48 – 51 mm | * 3 L Juice Jug |  |

**Sizing Helper Chart:**

A printable to-scale document is included to match a specific cap size to the appropriate bottle opener. To successfully print, check “actual size” in the print settings. Once the document is printed, a scale check line has been included to test if the document correctly printed to scale.

### Attribution

The original and modified version of this design, as well as the documentation, was created by Neil Squire / Makers Making Change.