Can Stabilizer **DESIGN RATIONALE**



Introduction

The Can Stabilizer is an aid that helps stabilize a beverage can so that a user with limited hand dexterity can more easily and more confidently open the can or pick it up independently with less fear of knocking it over.

Research

Beverage cans are available in a variety of sizes but fall under 3 diameters: 53 mm (202), 58 mm (204.5) and 66 mm (211)¹. The 66 mm size is the one used in the standard 355 ml / 12 fl oz can most used in North America.

Requirements

Goals

| G01 | Stabilize the can so user can open or form a grip without fear of knocking it over. |
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Functional Requirements

| F01 | The device must allow the can to be easily inserted. |
|-----|--|
| F02 | The device must prevent the inserted can from being knocked over while being opened. |
| F03 | The device must allow the can to be easily removed. |

¹ https://www.crowncork.com/beverage-packaging/beverage-cans

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Design



This design consists of a cylindrical sleeve with 4 stabilizing arms that extend outwards.

Opportunities for Improvement

- Add material on the bottom to make it grip better (e.g., Non-slip material like Dycem)
- Add a chamfered or bevel to the top inside edge of the stabilizer to make it easier (i.e., require less positional accuracy) to insert the can
- Add holes to the bottom of the stabilizer to allow air to escape when the can is removed and inserted to make it easier to insert and remove the can.
- Create variants to accommodate additional can sizes
- Add chamfer to bottom printing edge to reduce risk of abrasion