



# Pill Slicer

## DESIGN RATIONALE

### Introduction



The pill slicer is an easy to use device that slices a pill into two. This device is intended for users that need to cut pills into two and have difficulty doing so without crushing the pill.

### Research

Name	Image	Price	Link
Commercial			
EZY DOSE Pill Cutter		12.25	<a href="#">Link</a>
Pill Cutter		8.99	<a href="#">Link</a>
DIY			

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DIY Multiple Pill Splitter		N/A	<a href="#">Link</a>
Homemade Pill Splitter		N/A	<a href="#">Link</a>

## Requirements

### Goals

G01	Device must be able to easily slice a pill
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### Functional Requirements

F01	Device must use a replaceable slicing device
F02	Device must be safe and difficult to injure yourself with.

### Constraints

C01	Design must be entirely 3D printed
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## Conceptual Design

Initial design was found on myminifactory.com by user [Aliaksei Petsiuk @apetsiuk - MyMiniFactory](#)

## Prototyping

After inspecting the files for the first version, it was found that there was no blade or method of slicing the pill mentioned in the original device posting. A version was designed that uses a standard disposable safety razor blade.

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### Testing

After the first print of the updated design, it was found that the overhangs were too steep for most printers, leading to poor surface quality.

### Detailed Design

A final version was designed with better overhangs that are more printable and reduced print time by an hour.

### Opportunities for Improvement

More safety features could be added in addition to the blade fence to improve the safety of the device.