



Puzzle Cube #1 (small fun and challenging brainteaser)



GlennovitS 3D

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Summary

Need to store something small and private? Perfect! The puzzle-cube #1 is here for you!

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Need a small box to store something small and private on the go - maybe as a student in class - here you have it. Not just a box - it's a **puzzle-box** in a small and cute form factor. Your friends won't find your secret in here! Might be **more difficult than you thought!**

NEW version available - Retro TV style of Puzzle Cube #1!

Overview

The puzzle is **made of the following parts**.

- Box
- Lid
- LockWheel (5 different versions - you only need 2)
- LockSpring
- Axle

You can also print the box and lid in **multiple parts to easier do a multicolor** print:

- Box
 - Box Shell
 - Box Internal
 - Button
- Lid
 - Lid Main
 - Lid Center



If you go with multiple parts, they need glue to be assembled. If you go with the singlecolor version - no glue is required!

Filament

I printed these in filament sponsored by **FormFutura** - and they work great! Their **Easyfill PLA** colors looks great! If interested, check out their products here:

- **Easyfil PLA** (aff): <https://formfutura.com/product/easyfil-pla/?aff=11>

Assembly

Do the following:

1. Put 2 LockWheels onto the Axle (the selection and orientation will determine the solution!)
2. Press the Axle with LockWheels into the slot in the Box
3. VERY IMPORTANT! Ensure that the LockWheels spin freely! If not: take them out and sand them.

4. Insert the LockSpring in the small slot on the backside of the Lid
5. Rotate the LockWheels to have the flat side towards the opening, and slide the Lid onto the Box from the side
6. When almost all the way, press the LockSpring in with your finger, while pushing the Lid all the way.

See images for help

Solution

This is the fun part. And it's simple: spin the box and open it!

If you do want a little more help, there is a little help at the very bottom of the page ↓

More games and puzzles? Then this might be for you.. Check out this [collection of games and puzzles](#) - everything from 1-part prints to more complex models - have

Print instructions

- **Layerheight:** 0.2 mm
- **Speed:** First layer: slow down for all small parts.
- **Infill: Normal BUT 100% for LockWheels!** (to give some weight to the parts)

Happy printing!

SPOILER - Solution helper

The rotation of the box that allows opening, is based on the LockWheel orientation when assembling.

Rotate the box so the flat side of the first LockWheel (from the right) is against the Lid. Then slide the Lid a little to the left. Then rotate the box again until the second LockWheel's flat side is against the Lid. Then slide the Lid all the way to open the Box.

Practice makes perfect

Model files



Singlecolor

9 files



lockwheel-b.stl



lockwheel-d.stl



axle.stl



lockwheel-a.stl



lockspring.stl



lid.stl



lockwheel-c.stl



lockwheel-e.stl



box.stl



Multicolor

12 files



lid-center.stl



axle.stl



lockwheel-b.stl



box-button.stl



lockwheel-e.stl



lockspring.stl



lid-main.stl



lockwheel-d.stl



lockwheel-c.stl



box-shell.stl



box-internal.stl



lockwheel-a.stl

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