



Working cylinder lock



Hugo

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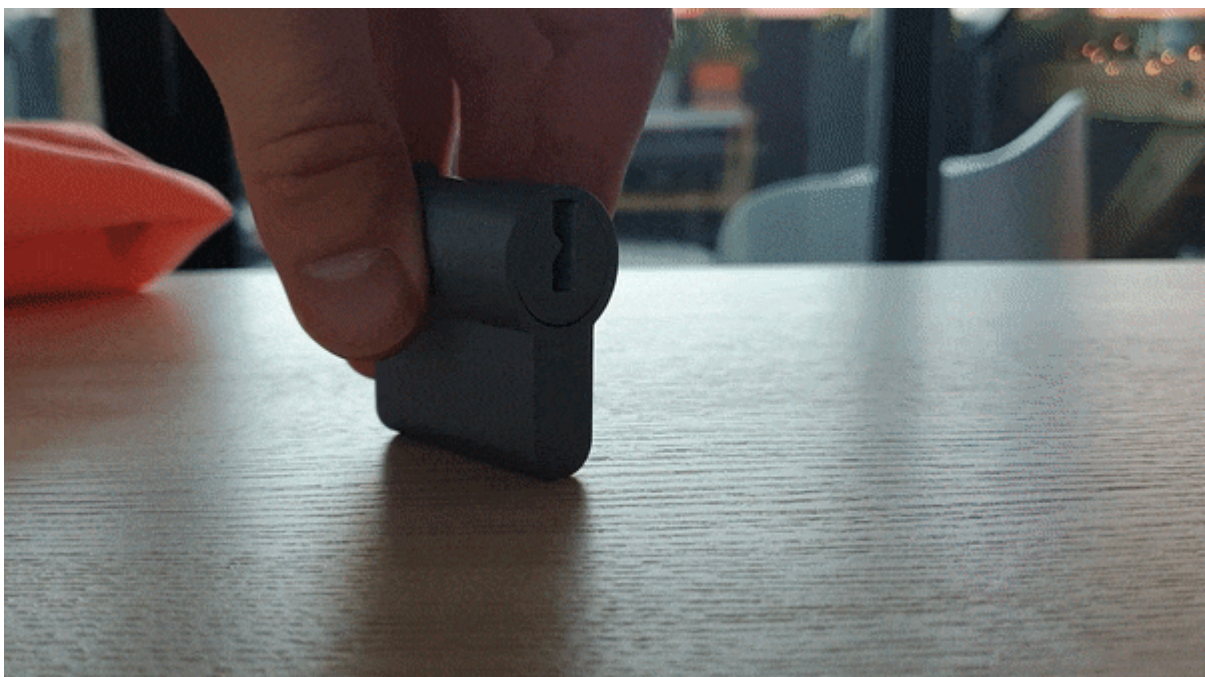
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Summary

This model is a working cylindre lock with, to better understand how it works. And it has a very satisfying sound !

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Instructions

Required :

Printed pieces :

- 1 x Cylinder
- 1 x Core → only piece that needs support for the groove
- 1 x Key
- 1 x Pin1
- 1 x Pin2
- 1 x Pin3
- 1 x Pin4
- 4 x Over_pin
- 1 x Clip
- 1 x Cylinder_for_assembly → This is needed only to assemble the lock

Additional hardware :

- 4 x spring → I used springs from ballpoint pens
- A pair of pliers or tweezers to place the pins and springs

Step 1



Put the Key inside the Cylinder all the way and place each pin in its designated hole, the rounded side facing the bottom → the top of each pin should lay flat on the Cylinder's surface as shown :



Step 2 :

Prepare the Core by placing the 4 springs in the designated holes.

Then carefully place the Over_pin on top of each spring. To do that you need to use the Cylinder_for_assembly to prevent them from popping out.

Insert the Cylinder_for_assembly at the back of the Core and place the first Over_pin with pliers or tweezers on top of the spring, push it into the hole and hold it in place with the Cylinder_for_assembly.

Repeat this step for each pin



Step 3 :

At this point the Cylinder_for_assembly should be inserted all the way into the core to hold the Over_pins in place.

Carefully replace the Cylinder_for_assembly with the previously assembled Cylinder by pushing on it until you are all the way in.



You can now place the clip in the groove to prevent the Cylinder from coming out.

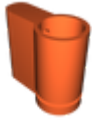
You can also take the key out, you should hear the pins dropping in place.

It may require some sanding to work smoothly. If the mechanism is blocking, try sanding the top of the pins so that they lay as flat as possible with the cylinder.

Model files



cylinder.stl



core.stl



key.stl



pin1.stl



pin2.stl



pin3.stl



pin4.stl

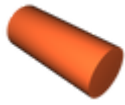


over_pin.stl

 Print 4



clip.stl



cylinder_for_assembly.stl

☐ Required only for assembly

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