



Working Slot Machine (Print-In-Place)



Makkuro

[VIEW IN BROWSER](#)

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Summary

This is a working print-in-place slot machine. It has two wheels with symbols to align to win. No assembly required.



1.97 hrs



2 pcs



0.20 mm



0.40 mm



PLA



15 g



Prusa
MK3/S/S+

[Toys & Games](#) > [Other Toys & Games](#)

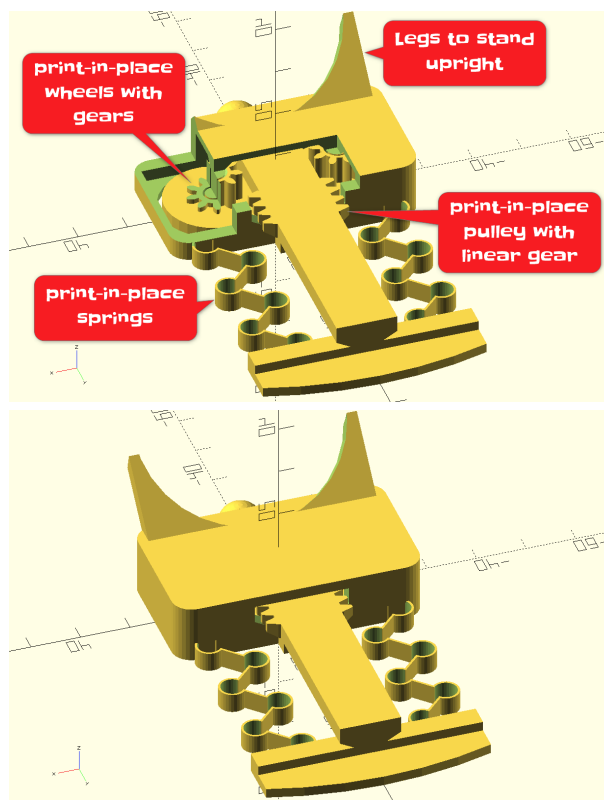
Tags: [toy](#) [office](#) [desk](#) [desktop](#) [game](#) [kids](#) [fidget](#)
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[noassemblyrequired](#) [d10](#) [gambling](#) [dices](#) [noassembly](#)
[slotmachine](#) [2d10](#)

This is a working slot machine. It has a spring to spin two lucky wheels. Use the feet on the back to display the slot machine on your desk, so people will pick it up and play.

Or print it as a toy for your kids, grandkids, or friends.

Printing

- Activate “**Detect thin walls**” to print the first layer including the spring in case you don't use prusa-slicer.
- Print it **without supports** and as oriented in the STL. (The face of the slot machine should point down towards the print bed.)
- Use standard settings and 0.2mm layer height.
- The slot machine is fully **print-in-place**: No assembly required, just remove the slot machine from the print bed and play!
- The slot machine is designed for **easy printing**, so bed adhesion should not be an issue.
- The spring is 3D printed, and works well also if you print in **PLA**. If the spring is gone after slicing, please use [PrusaSlicer version 2.5.0](#) or later!



- You can **change colors** at 0.6mm and 1mm to have the multicolor look like in the picture above.

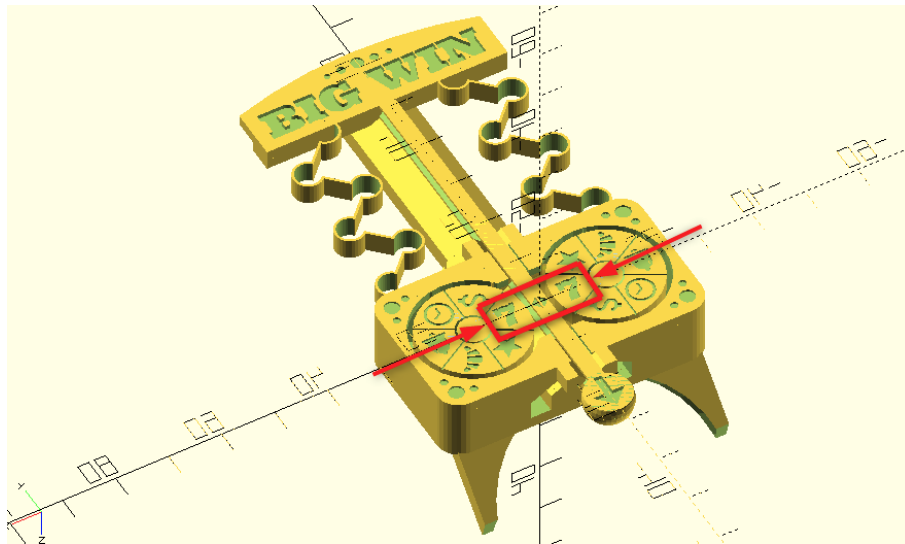


Models included

- **Office Version:** This is the version shown in the pictures. Title is “Big Win”, the wheel symbols are: "7",Dollar,Clock,Bell,Croissant,Star. This is good for your office desk: If visitors get twice “croissant”, go have a break. If they get the clock, take your time to talk to them.
- **Dice Version:** Title is “Crabs”, two wheels with dice from 1-6 each.
- **Slots Version:** Title is “Slots”, two wheels with each a diamond, 7, star, blocking sign,dollar, bell
- **2d10 Version:** Title is “2d10”, two wheels numbered from 0-9, to create dice throws from 0-99, for RPGs
- **“Wiggle 0.6mm”, “Wiggle 0.8mm”:** These are versions in case the wheels dont turn freely or break off. A reason might be that the first layer is “too wide” due to too little elephant foot compensation in your slicer, so the wheels are fused with the axle and they cant turn freely. The standard wiggle room is 0.4mm. You can choose now betweenn wiggle of 0.6mm and 0.8mm. Please let me know what works for you in case you had issues!

How to play

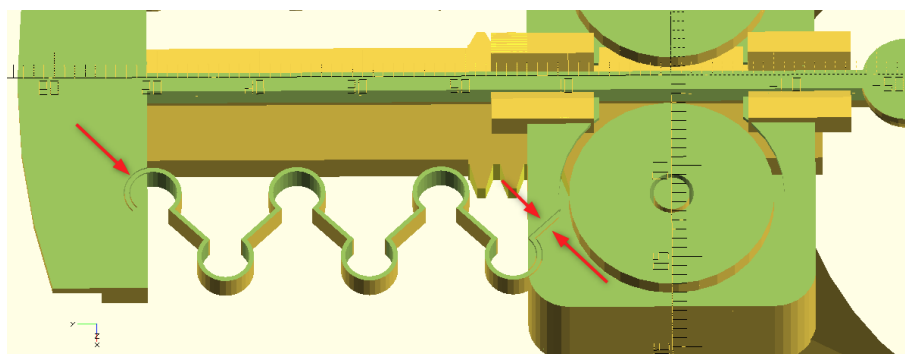
- Pull the ball (with the arrow down) and let go. The wheels will turn. When they both show the same result in the middle, you have won!



Design of the in-line spring

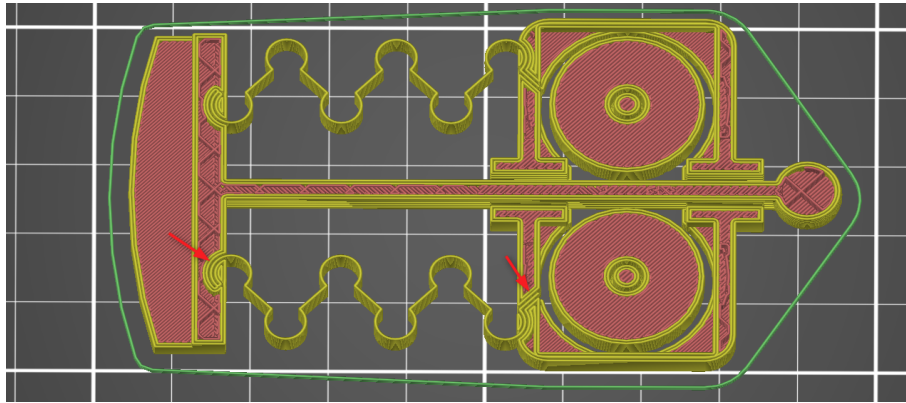
After the **print-in-place cannon** where I used a vertically printed spring, I wanted to also make a horizontally printed spring which doesn't break. Two principles turned out to be crucial (after a lot of test prints):

- **Springiness:** The best spring action was in the rounded parts, so I made the round part as long as possible (270 degrees) and shortened the straight parts. That's what defines the "funny look" of the springs.
- **Spring attachment:** The spring was breaking off where it was attached to the slot machine body. The reason was that the spring was not printed in one line together with the slot machine, but rather afterwards (As the slicer was optimizing the tool path). This can be avoided by "embedding" the spring artificially into the slot machine, with the right amount of air gap, as can be seen here:



By using this trick, the spring was properly fusing with the remaining slot machine and was no longer breaking off.

Here you see the result in Prusaslicer:



I added a “cap” and “bottom” on top of the embedded spring, so you cannot see the spring embedding on the surface of the slot machine.

Thanks

Thanks go out to [Ben D](#) for the photo of his “Craps” slot machine.

Thanks to [MCXIII](#) for his photo mid-print.

Video

Thanks to [lostintech](#) for featuring this print in his [video](#)!

Troubleshooting

In case the spring is not sliced well please try slicing with PrusaSlicer version 2.5.0 or later.

In case the wheels break or dont turn freely, use the “Wiggle 0.6mm”, “Wiggle 0.8mm” versions which increase the space between the wheel and the wheel axle. The standard wiggle room is 0.4mm.

In case you have stringing around the springs, [speakingofbrad](#) recommended to not activate „avoid crossing perimeters“ in your slicer. Thanks speakingofbread!

Model files



Normal versions

5 files

pip_slot_machine_vh_officeversion.stl



pip_slot_machine_vi_diceversionv2.stl



pip_slot_machine_vj_slotsversion.stl



pip_slot_machine_vm_2d10.stl



pip_slot_machine_vn_is_it_random.stl



Use these only if wheels are fused

2 files

pip_slot_machine_vk_officeversion_wiggle06mm.stl



pip_slot_machine_vk_officeversion_wiggle08mm.stl



Print files



pip_slot_machine_vh_02mm_pla_mk3_1h58m.gcode

🌀 PLA 🌀 0.40 mm ≡ 0.20 mm ⌚ 1.97 hrs ⚖️ 15 g 🖨️ Prusa MK3/S/S+

☐ This includes stops at 0.6mm and 1mm to change the filament twice!



pip_slot_machine_vh_officeversion_02mm_pla_mini_1h5... .gcode

🌀 PLA 🌀 0.40 mm ≡ 0.20 mm ⌚ 1.90 hrs ⚖️ 15 g 🖨️ Prusa MINI / MINI+

☐ This includes stops at 0.6mm and 1mm to change the filament twice!

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