



Working Cannon (Print-In-Place)



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[VIEW IN BROWSER](#)

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Summary

This is a working print-in-place cannon. It has a hinge and spring to shoot cannon balls. No assembly required.



2.03 hrs



2 pcs



0.20 mm



0.40 mm



PLA



16 g



Prusa
MK3/S/S+

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

Tags: [toy](#) [office](#) [desk](#) [ball](#) [cannon](#) [kids](#) [fidget](#) [gift](#)
[spring](#) [printinplace](#) [desktoy](#) [noassemblyrequired](#)
[noassembly](#) [officewars](#)

This is a working cannon. It has a spring to shoot cannon balls. Use the hinge to aim precisely. Print as many cannon balls (included) as you need or shoot paper balls, peas, etc. Print it as a toy for your kids, grandkids, or present it to friends as a gift. Some use it to launch cat treats for the cats...

In the base carriage, there are indentations to store 2 cannon balls. (Better print two).

Use it as a permanent display on your desk, ready to fidget or defend yourself whenever needed.

Update October 2023: You find a **keychain version** with ball holder [here](#).

Update 12th of December: Added a “thick plunger” version as requested by [fabrizio-the-frog](#) and [yume](#) . It has a way thicker plunger only in case you have issues with the normal diameter plunger.

Update 13th of September: Added the [tiny keychain cannon](#). It holds one ball securely in place and is still fully functional. In case you can print this version, try also the tiny version!

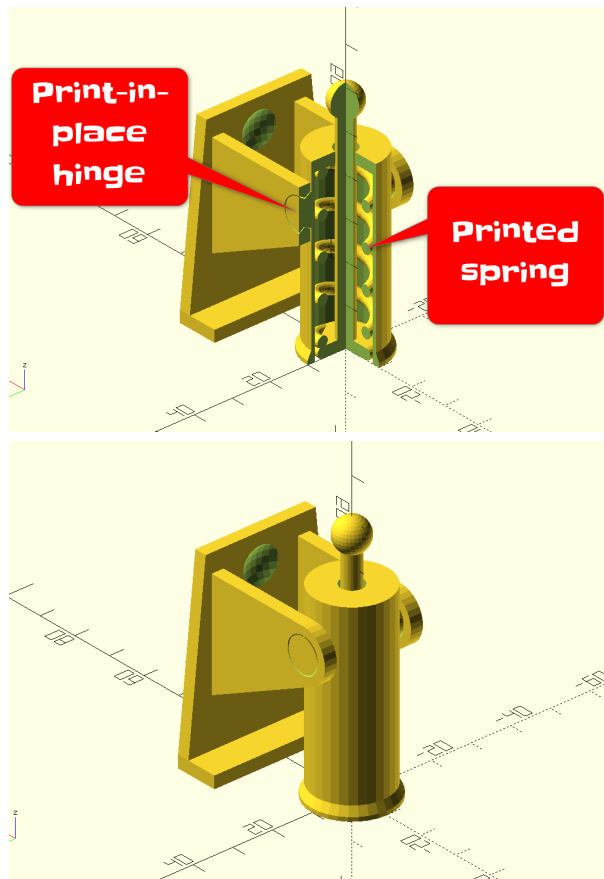
Update 8th of July: Added the [autoloading cannon](#) remix. It can load two balls and you dont need to prime the cannon anymore before putting the cannon balls in:



Update 1st of July: I added the “big gun” models (idea from [nilson_fx](#)): With those, you can shoot 23mm nerf rival ammunition or the included “big gun” cannon ball.

Printing

- Print it **without supports** and as oriented in the STL. (The cannon and front of the carriage should point down towards the print bed.)
- The cannon is fully **print-in-place**: No assembly required, just remove the cannon from the print bed and fire away! (The hinge and piston might need some initial movement to get going.)
- The cannon is designed for **easy printing**, so bed adhesion should not be an issue.
- The spring (inside the cannon) is 3D printed, and works well also if you print in **PLA**. There is a hinge included for aiming. It might need some initial movement to get going.



Models included

- You can select a strong or weak spring (weak one for kids, to make it easier to pull and reduce potential injury). **New:** There is also a third “big gun” version, able to shoot 23mm nerf rival ammunition or the included bigger cannon ball.
- For each version, there are three models:
 - The cannon only, you can also print this as initial test for your calibration
 - The cannon without wheels
 - Then cannon with wheels. The wheels dont turn, but look cool. They also print without support material
- There is also a cannon ball included



Thanks

Thanks to [iqless](#) for the picture of his “cannon-only” print, and thanks to [MatthewHarles](#) for the “cannon-only” two color print! Thanks to [deadhawke](#) for his picture of the black cannon being pulled by hand. Thanks to [gerd](#) for his photo of the yellow cannon with yellow/blue cannon balls. Thanks to [collisto](#) for the photo of the bling-bling white/golden cannon.

Thanks to [nilson_fx](#) to pointing out an issue in the cannon design which might have lead to printing issues. Also he had the idea to do a bigger version.

Thanks to [makeshift-meatballs](#) to point out that the “big gun” model was not correctly uploaded.

Thanks to [revy2k](#) for his picture of the red Big Gun scaled to 230%, his visual deterrent, alongside a normal cannon.

Thanks to [rockzz22](#) for the picture of the collection of his white and green cannons.

Thanks to [matemaciek](#) for his picture of the translucent orange and blue cannons.

Thanks to [Chris](#) for his picture of the print bed full of cannons in dark red glitter.

Thanks to [aroet](#) for his picture of cannon ball and hand-held cannon mass production.

Videos featuring this model

- Thanks to [lostintech](#) to feature this model in his [youtube channel](#)!
- Thanks to [+Ultra](#) for his [TikTok video](#) of the cannon.
- Thanks to [MakerTeam](#) for their print video on [youtube](#).

Troubleshooting

In case the hinge is fused (not turning) or the spring doesn't work, try slicing with PrusaSlicer. E.g. Cura seems to have trouble with print-in-place hinges.

Other models

There is now a [target](#) to shoot at available from [mattstudio](#)!



I uploaded a new print-in-place spring-driven model, the [slot machine](#)!



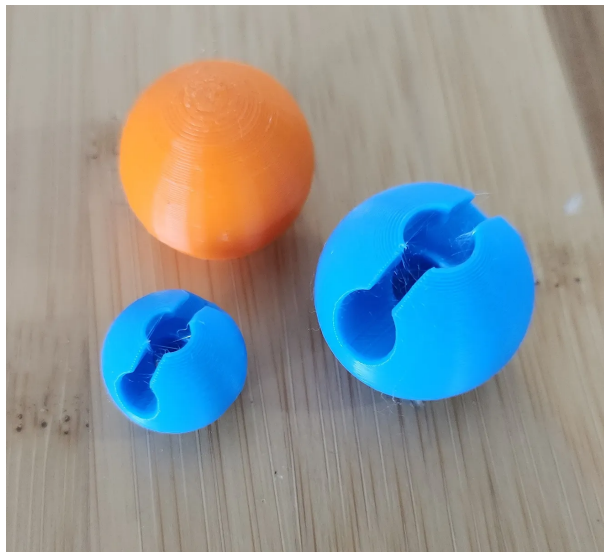
There are [alternative rocket projectiles](#) from Repoholy available:



In case you need a pirate coaster along with the cannon, look for jakes [coasters](#).



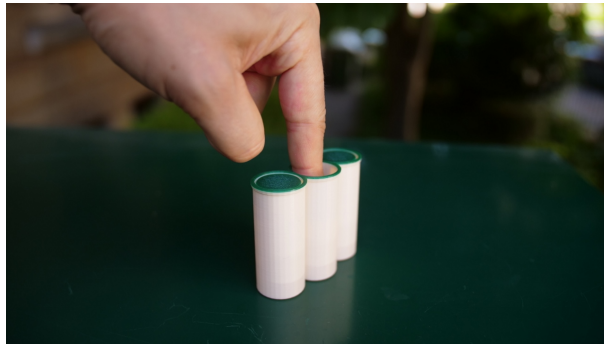
There are **Child- & pet-safe cannonballs** from DP design available:



See also my other fidget models, e.g. the **fidget rings** or the new **fidget flaps**:



I experimented more with the spring mechanism, and created also a **finger trainer** from them:



There are more **print-in-place** models, e.g. the **spinning coaster**:



Model files



Strong spring

3 files



pip_cannon_vl_cannonplusbaseandwheels.stl



pip_cannon_vl_cannonplusbase.stl



pip_cannon_vl_cannononly.stl



Weak spring for kids

3 files



pip_cannon_vl_cannonplusbaseandwheels_weakspringf.stl



pip_cannon_vl_cannonplusbase_weakspringforkids.stl



pip_cannon_vl_cannononly_weakspringforkids.stl



Big gun version

4 files



pip_cannon_vl_biggun_cannonplusbaseandwheels.stl



pip_cannon_vl_biggun_cannonplusbase.stl



pip_cannon_vl_biggun_onlycannon.stl



pip_cannon_vl_biggun_ball.stl



Thick plunger (only if you have printing issues)

3 files



pip_cannon_vm_thickrod_cannonplusbaseandwheels.stl



pip_cannon_vm_thickrod_cannonplusbase.stl



pip_cannon_vm_thickrod_cannononly.stl



pip_cannon_vi_cannonball.stl

Print files



pip_cannon_vl_cannonplusbaseandwheels_weaksprin.gcode

PLA 0.40 mm 0.20 mm 2.03 hrs 16 g Prusa MK3/S/S+



pip_cannon_vi_cannonball_04n_02mm_pla_mk3_12m.gcode

PLA 0.40 mm 0.20 mm 0.20 hrs 1 g Prusa MK3/S/S+

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