



Magnetic Acupuncture Fidget Toys

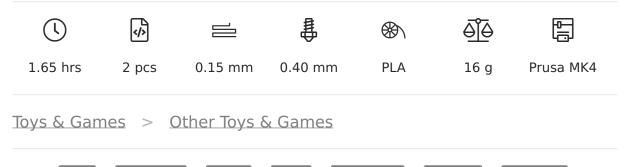


VIEW IN BROWSER

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Summary

A printed sleeve for magnetic fidget spheres creates satisfying textures and reduces noisy clacking.



Tags:toyspinnertoysballmagnetfidgetspheretexturescratcheracupunctureasmrscratchers

UPDATE: I found that the "nubby" sphere broke too easily when dropped, so I included a few updated STLs with thicker walls. I also discovered how much fun "fuzzy skin" is, so I included a new smooth texture sphere which can be sliced with the fuzzy skin option in PrusaSlicer. I used a thickness of 0.5. I haven't updated the 3mf/bgcode files or the larger version STL files yet, but if there is enough interest I will.

Spherical magnetic fidget toys inspired by acupuncture massage balls. There are 5 different textures - wavy, golf, bumpy, nubby and (new!)

smooth. There is a larger and smaller version with dimensions noted in each file. There are the following two ways to print:

You can print the two pieces of each sphere individually, insert the magnet after printing, and then super glue the two pieces of the sphere together.

- Pros of this are that all the surfaces come out uniform and smooth.
- Con is that you can see the glue line.
- 15% infill
- No Supports
- Recommend using a smooth sheet when printing PLA to reduce the visibility of the seams.

OR

I've also included whole part prints in which you can pause the print midproduction, add the magnet, and then finish printing.

- Pros is no glue seam.
- Cons is you will need supports for the base of each sphere causing there to be a texture difference where the supports attached.
- 15% infill
- Supports Needed on Baseplate Only

You can use whatever magnets you have on hand. I experimented with the following:

25mm spherical magnets: https://a.co/d/8ce265w with the larger size prints. These are a bit too big for my liking, but magnets were nice and strong.

20mm spherical magnets: https://a.co/d/bdL9SIV (The image in the listing says 1.26in but that is incorrect.) with the **smaller sized prints.** Goldilocks! These were my favorite.

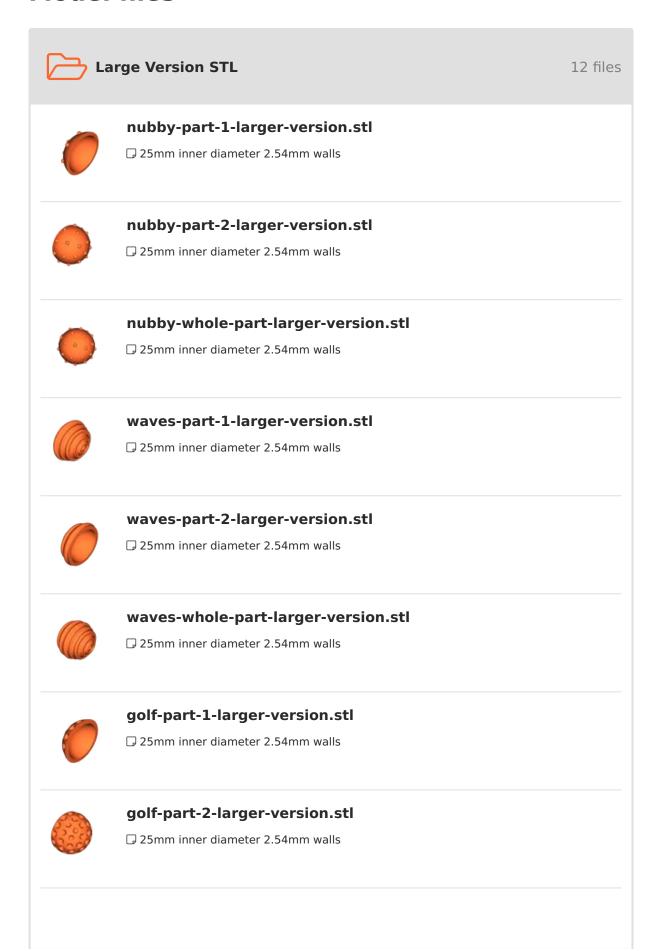
10mm x 5mm cylinder magnets: https://a.co/d/89MrCqJ with the smaller sized prints. These were some magnets I already had lying around. They were too small.

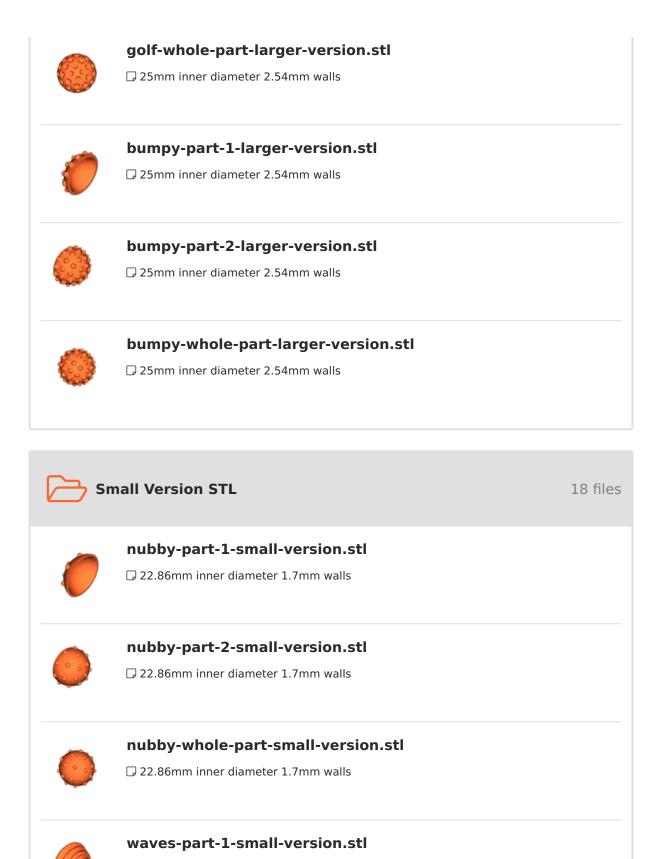
The magnets are able to roll around inside of the sphere's cavity which makes a bit of a rattle but allows them to spin to make the best contact with nearby spheres. The spherical magnets are a bit quieter, but it is just a personal preference.

If you're interested in making your own textures or resizing the spheres, here is the Onshape link:

https://cad.onshape.com/documents/490c8e355b9a796aa98d80e1/w/4195fd43fae9908dec9e46d8/e/12a0a0784b1e5689798ab792?renderMode=0&uiState=670f2f0cfae8f63b5c747dab

Model files





☐ 22.86mm inner diameter 1.7mm walls



waves-part-2-small-version.stl

☐ 22.86mm inner diameter 1.7mm walls



waves-whole-part-small-version.stl

☐ 22.86mm inner diameter 1.7mm walls



bumpy-part-1-small-version.stl

☐ 22.86mm inner diameter 1.7mm walls



bumpy-part-2-small-version.stl

 \square 22.86mm inner diameter 1.7mm walls



bumpy-whole-part-small-version.stl

☐ 22.86mm inner diameter 1.7mm walls



golf-part-1-small-version.stl

☐ 22.86mm inner diameter 1.7mm walls



golf-part-2-small-version.stl

☐ 22.86mm inner diameter 1.7mm walls



golf-whole-part-small-version.stl

 $\hfill \square$ 22.86mm inner diameter 1.7mm walls



smooth-part-1-small-version-thicker-walls.stl

☐ 22.86mm inner diameter 2mm walls



smooth-part-2-small-version-thicker-walls.stl

☐ 22.86mm inner diameter 2mm walls



smooth-whole-part-small-version-thicker-walls.stl

☐ 22.86mm inner diameter 2mm walls



nubby-part-1-small-version-thicker-walls.stl

☐ 22.86mm inner diameter 2mm walls



nubby-part-2-small-version-thicker-walls.stl

☐ 22.86mm inner diameter 2mm walls



nubby-whole-part-small-version-thicker-walls.stl

☐ 22.86mm inner diameter 2mm walls



fidget_toys-larger-version.3mf

☐ 25mm inner diameter 2.54mm walls



fidget toys-small-version.3mf

☐ 22.86mm inner diameter 1.7mm walls

Print files



fidget_toys-larger-version_04n_015mm_pla_mk4is_2h25m .bgcode

☐ 25mm inner diameter 2.54mm walls



fidget_toys-small-version_04n_015mm_pla_mk4is_1h39m.bgcode

 \P PLA \P 0.40 mm \cong 0.15 mm 0 1.65 hrs 1 16 g 1 Prusa MK4

 \square 22.86mm inner diameter 1.7mm walls

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