



-x-sample



prash.makes

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Summary

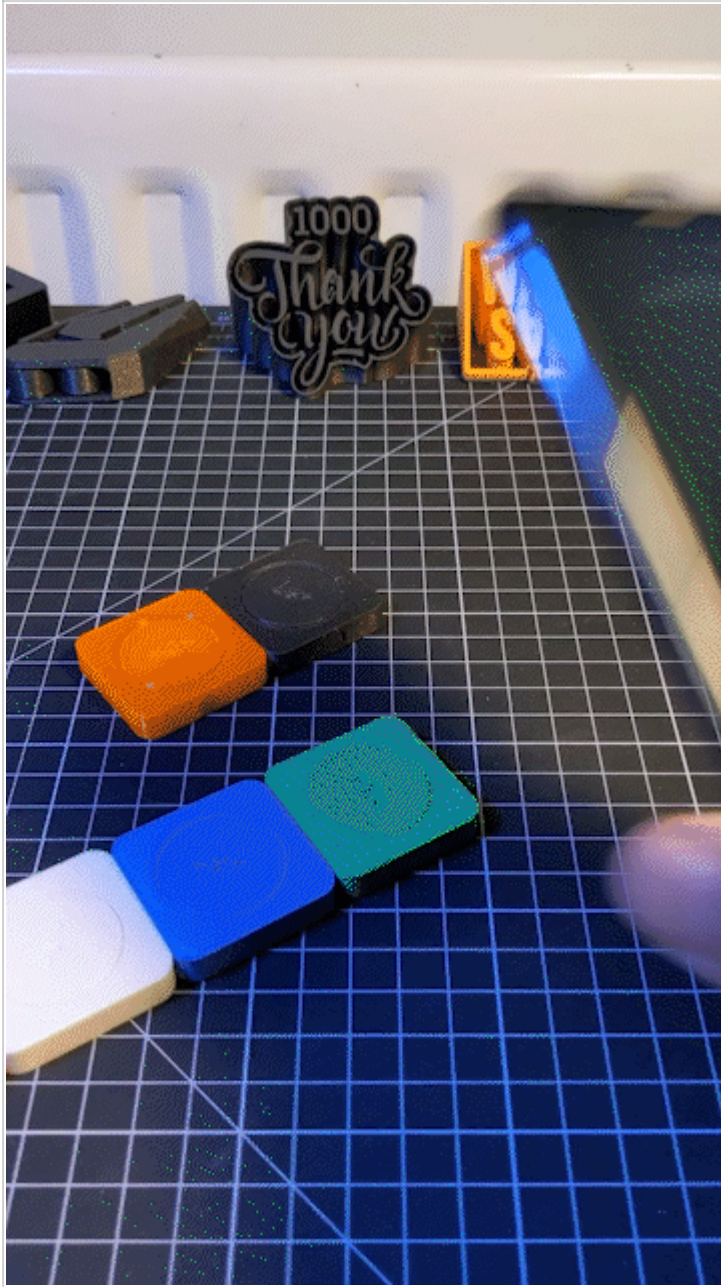
-x-sample is a small filament test piece with NFC for reference to order, spinning mechanism and magnets

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-x-sample is a filament test piece/swatch to be used as a reference of your filament when printed and has the following features:

- **NFC integration** - Used to link to filament supplier for easy re-ordering and filament identification
- **Print-in-place spinning mechanism** - To ensure your usual tolerances work with this filament (And because it's fun to use them as fidgets!)
- **Magnets!** - Integration with common 6x3mm magnets for snap together storage and filament comparison
- **Mounting hole** - In order to link a group of -x-samples together as with a collection of swatches.
- **Can print using small filament samples** - Uses 2.8m of 1.75mm diameter filament, samples are usually 5+ meters.



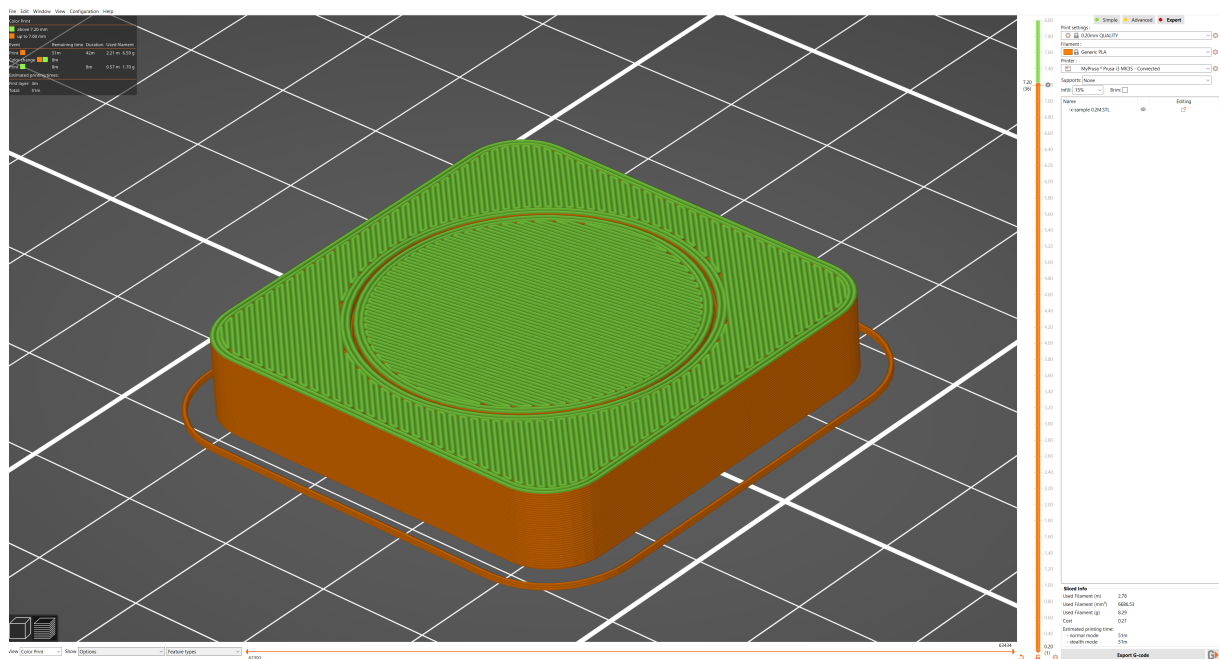
Update v0.2

- Changed dimensions of NFC slot
- Added 0.6 mm clearance version

Printing Instructions

I have been printing them with a 0.2mm layer height with 15% infill and quality settings in Prusaslicer on my MK3S, but I would advise using the settings you use most as this will give you the most representative -x- sample piece. It takes around 50 mins to print with these settings.

The number in the file names correspond to the clearance given for the print in place mechanism to spin. You can choose 0.2, 0.25, 0.3, 0.4 or 0.6.



NFC integration

It has been designed to be paused before 7.2 mm layer height such that a 25mm NFC sticker can be placed in the middle of the print, which is then bridged over in the next layer. I used stickers with the NTAG213 which can be found [here \(UK supplier\)](#). However, it is not necessary to add the NFC tag at all and you should be able to bridge over the cavity either way.

Once the NFC tag has been inserted and the print is finished you can use an app such as NFC tools to write a URL to the tag so the next time it is scanned by your phone, the URL is opened. I have been adding the link to my filament supplier to make ordering filament a one-step process!

Magnet assembly/Using the hole-y print

The files ending M have slots to insert magnets after printing. They use 6x3 mm magnets and should be inserted with the same orientation for magnets opposite each other and the opposite orientation for the adjacent magnets (see image).



The files ending H have holes to insert a keyring/chain/string/anything of your choosing to keep your -x-samples together.

See [@prash.makes on tiktok](#) for more!

Model files



x-sample-v02-02m.stl

☐ -x-sample with 0.2 mm clearance with magnet slot



x-sample-v02-02h.stl

☐ -x-sample with 0.2 mm clearance with a hole



x-sample-v02-02b.stl

☐ -x-sample with 0.2 mm clearance (no holes or magnet slot)



x-sample-v02-025m.stl

☐ -x-sample with 0.25 mm clearance with magnet slot



x-sample-v02-025h.stl

☐ -x-sample with 0.25 mm clearance with a hole



x-sample-v02-025b.stl

☐ -x-sample with 0.25 mm clearance (no holes or magnet slot)



x-sample-v02-03m.stl

☐ -x-sample with 0.3 mm clearance with magnet slot



x-sample-v02-03h.stl

☐ -x-sample with 0.3 mm clearance with a hole



x-sample-v02-03b.stl

☐ -x-sample with 0.3 mm clearance (no holes or magnet slot)



x-sample-v02-04m.stl

☐ -x-sample with 0.4 mm clearance with magnet slot



x-sample-v02-04h.stl

☐ -x-sample with 0.4 mm clearance with a hole



x-sample-v02-04b.stl

☐ -x-sample with 0.4 mm clearance (no holes or magnet slot)



x-sample-v02-06m.stl

☐ -x-sample with 0.6 mm clearance with magnet slot



x-sample-v02-06h.stl

☐ -x-sample with 0.6 mm clearance with a hole



x-sample-v02-06b.stl

☐ -x-sample with 0.6 mm clearance (no holes or magnet slot)

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