Synology NAS - Rattling noise suppression

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VIEW IN BROWSER

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Summary

It is composed of 2 systems; a tensioning system for drive bays and a damping system for the feet

Hobby & Makers > Other Ideas

Tags: tensioner vibration noisereduction nas synology

Important notice:

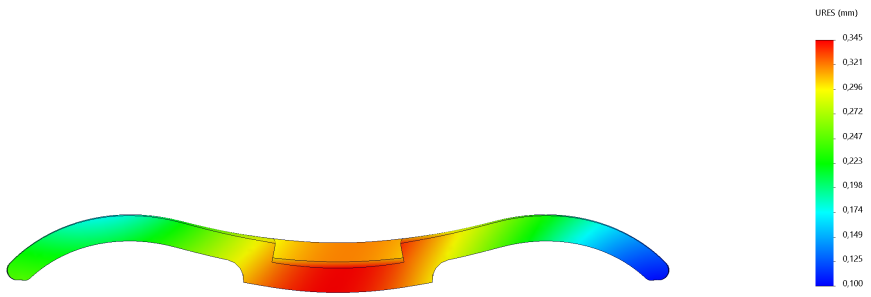
First thing is first:) This design is free for the benefit of the community, but If you like my designs and want to contribute, you can make a donation to **buymeacoffee** or **paypal,** that will be greatly appreciated.

I know some of you don’t have the ways to print this, if you need and live inside the European zone, I can make you this. Outside European zone is too expensive the delivery service is to expensive.

Introduction

As stated on the summary, this works very well for the rattling sound coming from the chassis.

I would also like to point out that this was not done randomly. I did a study and tried several drawings until I came to the solution that I show you here.



This representation shows that a load of 10N aprox 1kgf will result on a deformation of about 0.35mm, The imagem shows an amplification of the real displacement (better to understand)

Instructions

It is composed of 2 systems: a tensioning system for drive bays and a damping system for the feet.

you will find 2 kinds of damping system for the feet.

- Flex spring_soft - For NAS up to 4 bay;
- Flex spring - For NAS with more than 4 bays.

If, like me, I had a little double-sided adhesive foam, you can put some at the base of each foot. It won't do much about the noise, but it helps to keep your feet in place and in the installation of them.

Printing and material

You should only use PETG, PLA will deform rapidly due the ambient temperature and continuous loud. Even the PETG will suffer plastic deformation (permanent) at time... then, print other pack.

Do not use infill, only contour, which will change the moment of inertia of part.

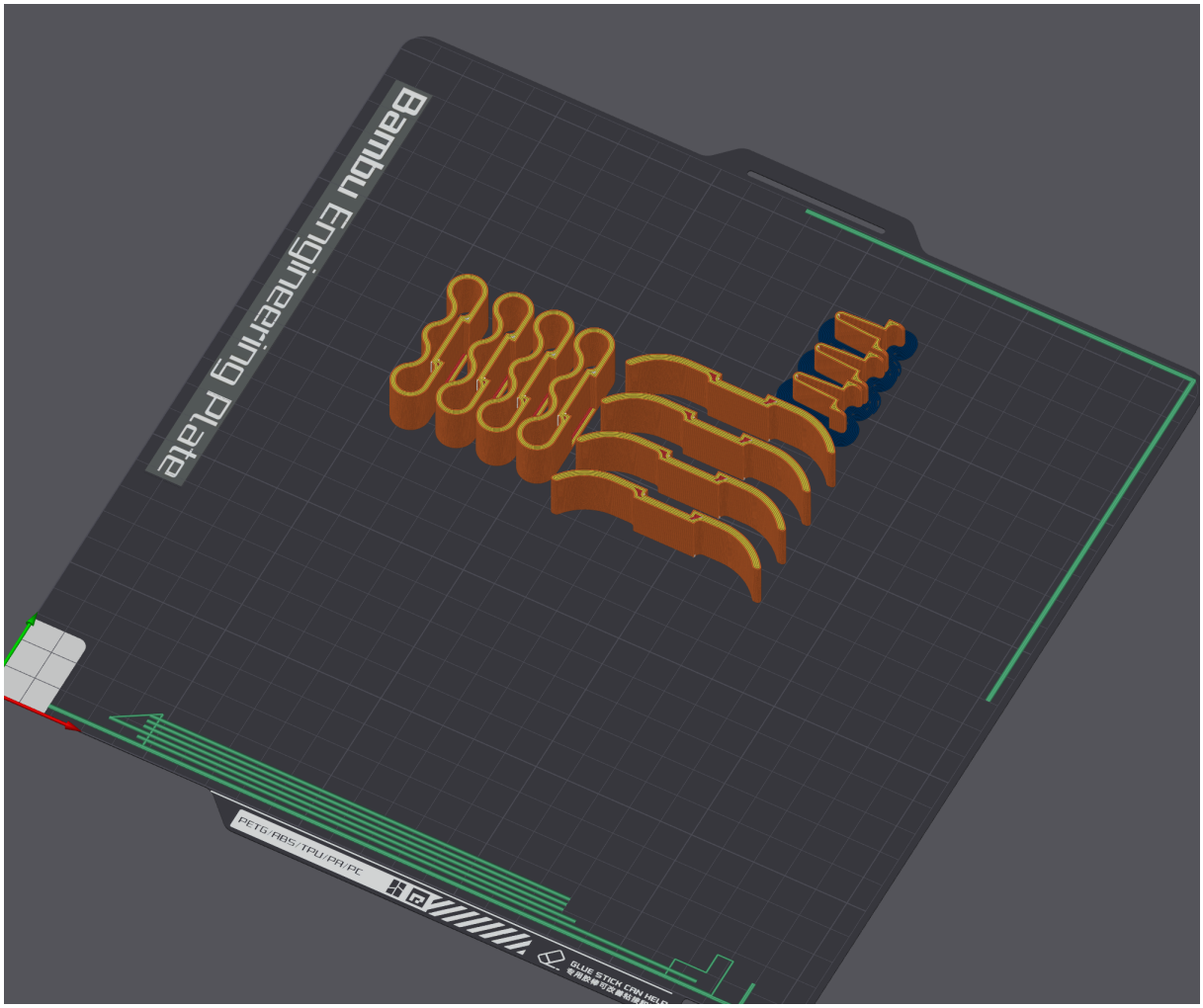
If you want, and have bambulab slicer, or Orca (for other printers), the project file is available:

- Synology noise reduction system.3mf

Conclusion

Did this help?

For me, absolutely, especially the combination of the two systems. Obviously I can hear the drivers spining and the reading head, that noise the drive would always make even if it was resting inside a cotton ball.



Model files

flex-spring.step

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disk-slots-fit-for-gap.step

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flex-spring_soft.step

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synology-noise-reduction-system.3mf

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