Gridfinity magnet stackable battery dispenser

FruitieX

VIEW IN BROWSER

updated 24. 1. 2023 | published 24. 1. 2023

Summary

Dispenses AA & AAA batteries from a 2x2x1 Gridfinity block. Print more and stack them if you have plenty of batteries.

Hobby & Makers > Organizers

Tags: batteryholder gridfinity

This Gridfinity battery dispenser fits 10 AA / 13 AAA batteries per 2x2x1 Gridfinity block, plus one dispensed battery. If you need to store more batteries, you can print another block that feeds batteries into the dispenser block underneath it.

Changelog:

- 2023-24-01: Uploaded version 2 of the label holders, making them much easier to attach than before. Version 1 had way too tight tolerances, sorry about that!

Note that due to dimension constraints (a 1 unit tall Gridfinity block is barely taller than the diameter of two AA batteries), the slope of the AA batteries' “ramp” is very small. This makes the dispenser quite space efficient, but may lead to batteries that refuse to roll. As such, you may need to give the dispenser a little occasional nudge to encourage all

batteries to roll further down ;). Making a small pushing motion with the dispensed battery seems to make the mechanism work more reliably, too.

The inserts have very tight gaps/tolerances between their walls and the batteries. This is to prevent batteries from spinning and falling off the rails, but depending on your exact model of batteries and printer calibration these may be too tight and cause jams. The Fusion 360 files are available if you wish to tweak the batteryLength parameter.

If you want, you can glue magnets to the top of the base block. This is useful to stop small bumps from knocking over your tall battery stack.

There's also an optional label holder accessory that attaches to the small holes along the front of the inserts.

Model files

Print these first 6 files

battery-dispenser-base.stl

AA or AAA inserts slide into this. Can stack multiple on top with different inserts.

aa-dispenser-inserts.stl

For use with AA batteries. These slide into the base.

aaa-dispenser-inserts-v2.stl

For use with AAA batteries. These slide into the base. v2 has tighter tolerances than before.

aaa-dispenser-inserts-v21-larger-tolerances.3mf

For use with AAA batteries. Slightly dialed back tolerance on these.

label-holders-v2-optional-for-aa-inserts.3mf

Print this if you want to attach a label between AA inserts. Easier to attach than before.

label-holders-v2-optional-for-aaa-inserts.3mf

Print this if you want to attach a label between AAA inserts. Easier to attach than before.

aa-stackable-inserts.stl

Print this for any additional stacked base blocks

aaa-stackable-inserts-v2.stl

Print this for any additional stacked base blocks, cut the bridge with a utility knife

aaa-stackable-inserts-v21-larger-tolerances.3mf

Print this for any additional stacked base blocks, cut the bridge with a utility knife

gridfinity-stackable-battery-dispenser-base-block-l... .f3d

gridfinity-stackable-battery-dispenser-aaa-insert.f3d

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