Bosch Battery Stand and Drill Bit Holder v.1.3

Volan

VIEW IN BROWSER

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Summary

A stand for the 12V Bosch Battery, and bit holder for multiple Bosch drills (now with a modular system).

Hobby & Makers > Tools

Tags: holder stand bit drill battery bosch 12v bitholder

A stand for the 12V Bosch Battery, and bit holder for the GSR 12V-15 FC drill. The bit holder may fit other Bosch drills if they have the same rubber band it attaches to.

- Apparently the bit holder also fits the Bosch GSR 12V-20 brushless drill.

The battery stand is for permanently attaching to the battery. It has clips that lock into the slots on the battery. It is removable but it's not supposed to be. It has built-in supports, because the locking clips has a very small 90 degree edge in a difficult place.

Bit holder holds 15 bits. It's also not supposed to be removed. It uses magnets 4mm diameter, 2mm thick, to hold the bits in place.

Printing any models in PLA is not recommended. The clips on the battery stand can break. You need very strong layer bonding here. It also needs to

be flexible so the clips can snap into place. I've used PETG and ABS with no breaking. Try PETG with little to no cooling.

- Someone did print a battery stand in PLA successfully. It would need to be pretty flexible though.

Bit holder could be extremely difficult to get on if you use PLA, so PETG is recommended here too. The drill could possibly get hot enough to deform PLA too.

Bit holder is printed with the front facing plane down. Solid. No supports. **It is attached over the rubber band on the drill.** You need to be careful so that band doesn't shred off. It should be attached from the front, and sort of "tipped" over the band. I would not try attaching it from the top, it might split.

Battery stand should have enough perimeters to make the wall going up the battery solid. The zip-tie is optional.

I've made 2 other versions of the bit holder. One has the front edge taken back a little so the bits might be easier to get out. The other one has round holes instead of hexagons. I have not tested these with magnets. The round one is a bit sloppier that the hex, but allows you to rotate the bits. I would not use the round one if you have very long bits, like in the picture. The hex holds them tighter.

I also made a version of the stand that has holes for 7 magnets on top of the tip. It's the same magnets as the bit holder. It can be used for holding a few screws or something.

Changelog:

v1.1

- Added a different type of stand that has 7 bit holders around the base. It uses the same magnets like the other ones. Not sure how well this one will work in practice. If you have large hands the bits will probably poke your hand a bit.
- Also added small holes under the magnets on all models (except round one) so they are easy to knock out if they get glued at an angle, or break. You will need something that's 1mm to fit in the hole.

v1.2

Rail Concept (experimental release):

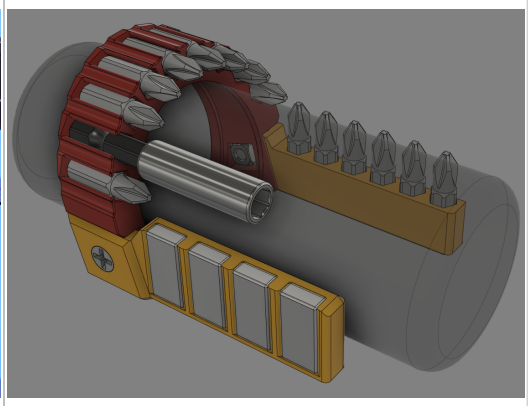
Testing a new concept: A new modular system that uses side mounted "rails" that can be made to fit additional accessories. At the moment I have one that holds 6 bits. One of these will make up for the 3 bits that are lost from the mounting area on each side. This side rail can hold bits that doesn't fit on the regular holder, like socket bits.

The other one is a magnetic rail that will hold anything... magnetic. It can hold more bits, lots of screws, drill bits, whatever. Magnets for this one are **20x10x5mm**.

> To protect the neodymium magnets on the rail from corroding away when the thin nickel coating is worn trough, you can put some heatshrink tubing over the whole area over the magnets and part of the rail. This will resist the wear you will get from holding screws and other sharp parts.
>
> Here I used some clear heatshrink >>>

All parts prints solid. Rails prints as the picture (bottom is down). Same magnets. You will need a **10mm countersunk m4** screw for this, and a square or regular nut.

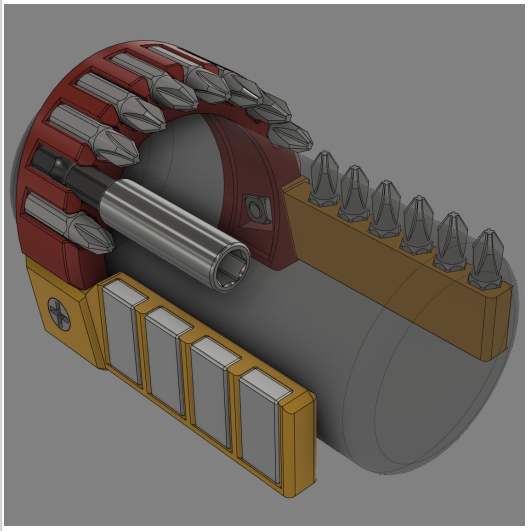
Rails can be mirrored in the slicer to fit either side.



v1.3

- Rebuilt the modular bit holder. Outer surface is now a continuous curve.
- Rotated bits so that the label now faces outwards.
- Added a chamfer to make the edge more resistant to impact.
- Extended the side mounted bit holder. Holds longer bits with a detent better.
- Removed round bit holder type.

Looks like this now:



Model files

bit-holder-v11.stl

bit-holder-recessed-v11.stl

battery-stand-v11.stl

battery-stand-magnets-v11.stl

battery-stand-bit-type-v11.stl

bit-holder-railtype-base-v13.stl

bit-holder-railtype-6bit-v13.stl

bit-holder-railtype-magrail-v13.stl

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