Gravity Broom Holder

👤 LoboCNC

VIEW IN BROWSER

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Summary

Easy-print broom holder for handles 21-28mm

Household   >   Other House Equipment

Tags: broomholder

This easy-to-print broom holder uses a rolling gear and the broom's own weight to securely clamp it in place. Just lift the handle slightly as you push it in place to lift the gear, and then let it settle back down to lock in place. To remove, just lift the handle as you are pulling outward. Accommodates handles from 21mm to 28mm diameter.

I've supplied two versions of the holder: One that mounts with standard drywall screws, and a second which mounts with my Drywall Anchor Nubs (file included here). Mounting holes should be 25mm (1 inch) apart.

Prints with standard PLA, no supports or anything else fancy needed.

To assemble, position the gear near the top of the rack and place the back-end of the gear into the slot in the back of the holder. You can then tilt the front-end of the gear into the rack. The 4th photo shows how the gear is kept from popping out. There is a lip along the front edge of the rack that keeps the gear from sliding towards you, and there is a little nub at the top of the rack that keeps it from rolling off the top end.

It grabs wooden handled brooms nicely. For metal handles which are slick, just add a couple of loops of a small rubber band on the tapered part of the gear.

UPDATE (3/27/22): I've augmented the lip that holds the gear in place, as one user had had problems with the gear slipping out forwards sometimes.

UPDATE (8/4/22): I've added a version with 3 screw holes, making it easier to mount into a stud.

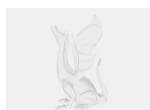## Model files

broomholder_screws.stl

broomholder_slots.stl

broomholder_3screws.stl

gear.stl

drywallanchor.stl

broomholder.step

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