Spraycan holder, magnetic and fully parametric

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VIEW IN BROWSER

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Summary

Customizable can holder with magnet for spray cans or other metal cans to easily attach them to the wall

Hobby & Makers > Tools

Tags: can holder wallmount spraycan spraycanholder spraybottleholder

Customizable holder for spray cans or other metal cans . The can is held in place by the magnet and the weight of the can is supported by the lower part where the bottom ring of the can sits in a notch. Easy to take out and put back.

Model is designed in 2 pieces to maximize strength by printing the correct orientation. No supports or elephants foot compensation is needed . Only uses 10-15 grams of filament to print.

The holder is attached with 1 screw to the wall.

The attached model stl files are with a default magnet size is 6mm diameter, 3mm thickness (had those laying around) and a 4.3mm screw hole, 8mm screw head, several can diameters 56-70mm & several holder

lengths 100-200mm. A step file for both parts is also added for easy modification in other software.

The 6mmx3mm magnets were able to hold cans with at least 400ml contents.

Adjustable parameters in Onshape (link is below the model files, also see the attached image):

- Can diameter, 60mm default
- Holder length, 100mm default
- Lower part width, 8mm default
- Holder thickness, 4mm default (top & lower part)
- Screwhead diameter, 8mm default (resulting hole size 4.3mm)
- Magnet thickness, 3mm default
- Magnet diameter, 6mm default (6-10mm possible without increasing top part height)
- Bottom notch size, 2.5mm default
- Magnet tolerance and top-lower part tolerance to make the holder and magnet snap fit depending on you printer calibration

In Onshape ,just double click on the parameter to update the values . To export the modified model to a stl in Onshape, just right click on the part 1 or 2 and and select export (default format is STL)

For best holding performance, the selected can diameter should be as close as possible and the magnet needs to touch the can wall. If the magnet is pushed in too far, it can be pushed back by inserting a nail or toothpick through the hole (2mm) behind the magnet.

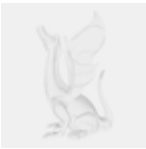
Optimal length is that the magnet is holding near the top of the can.

This design was inspired by https://www.thingiverse.com/thing:2024237 but that could not be modified so this design was born :-)

Please post a make if you printed the model.

Onshape link

This remix is based on



Onshape

Model files

can_holder-top_56mm.stl

can_holder-top_58mm.stl

can_holder-top_60mm.stl

can_holder-top_62mm.stl

can_holder-top_64mm.stl

can_holder-top_66mm.stl

can_holder-top_68mm.stl

can_holder-top_70mm.stl

can_holder-lower_part_100mm.stl

can_holder-lower_part_125mm.stl

can_holder-lower_part_150mm.stl

can_holder-lower_part_175mm.stl

can_holder-lower_part_200mm.stl

can_holder-lower_part_100mm.step

can_holder-top_60mm.step

Find source .stl files on Thingiverse.com

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