



Magnetic Separator Pick-Up Tool with Quick Release (Multiple Sizes)



squinn

[VIEW IN BROWSER](#)

updated 29. 4. 2023 | published 29. 4. 2023

Summary

This pick-up tool can grab onto ferrous metal objects and then dump them wherever you desire via a quick release handle.



4.88 hrs



1 pcs



0.20 mm



0.40 mm



PLA



59 g



Prusa MINI /
MINI+

[Hobby & Makers](#) > [Tools](#)

Tags: [tool](#) [magnet](#) [magnetic](#) [lift](#) [magneticholder](#) [lifter](#)
[magnetictoolholder](#) [magnetictool](#)

A must-have tool to help you conveniently pickup the various metal objects in your work space, and then easily drop them where they belong via the quick release handle (can also be used as a “transfer magnet”) .



All parts are designed to be printed without supports at any layer height, and I'd recommend setting the "Vertical Shells → Perimeters" setting to 4. Both handles are designed to be printed on their back, and the "Top" piece is designed to be printed upside down. In addition to the individual STLs, I've also attached a "3MF" file that includes all of the parts in their correct orientations as well as the "gcode" file I used to print the one shown in the pictures on my Prusa Mini.

Two Sizes Available & Parametric Model:

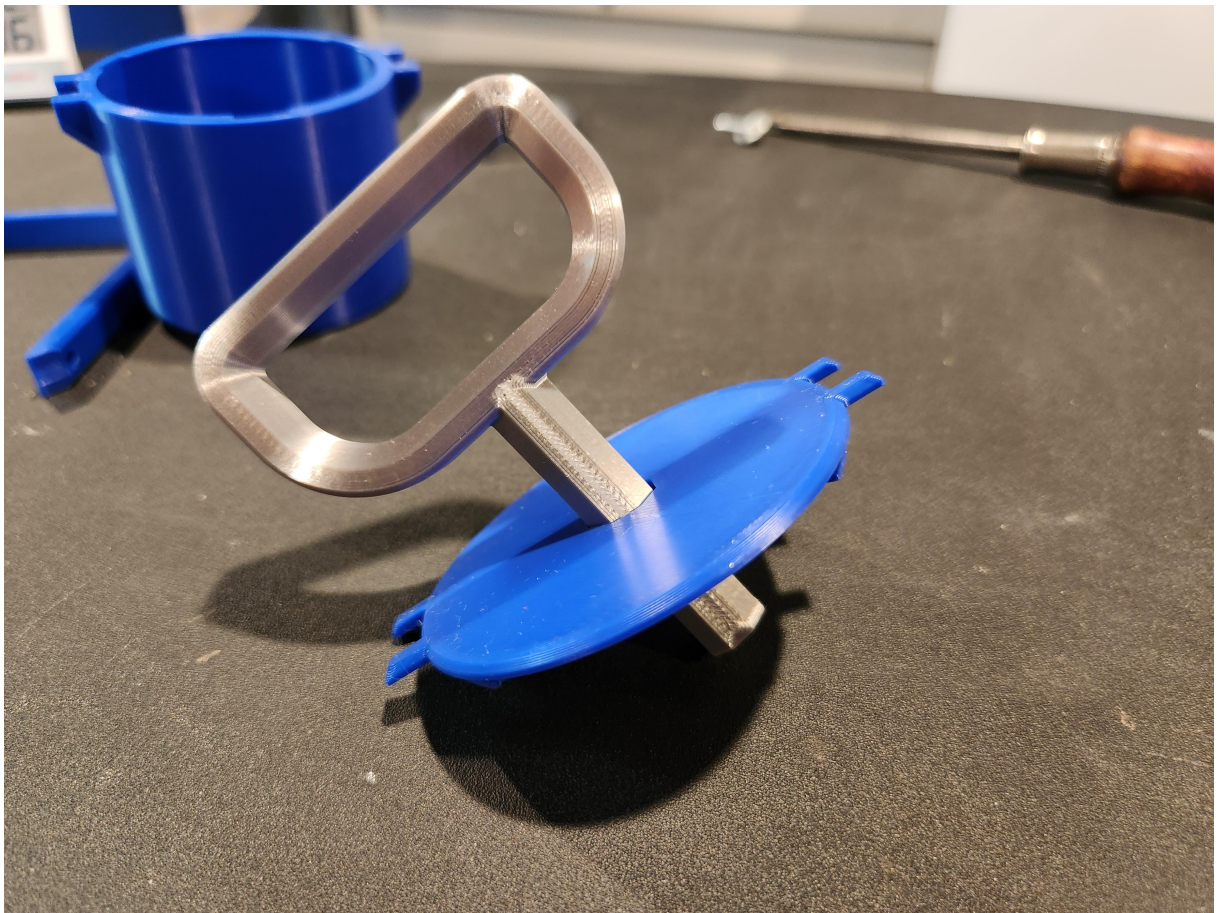
For the standard files (as shown in the pictures), you'll need a magnet that is **2.4 inches (~60 mm)** in diameter with a center mounting hole, such as [this one](#). (FWIW - the 50 lb pulling power on that one works quite well for this application.)

I've also uploaded files for a larger size that is designed for a magnet that is **3.2 inches (~80 mm)** in diameter, such as [this one](#) (which at the moment is actually a little cheaper, go figure).

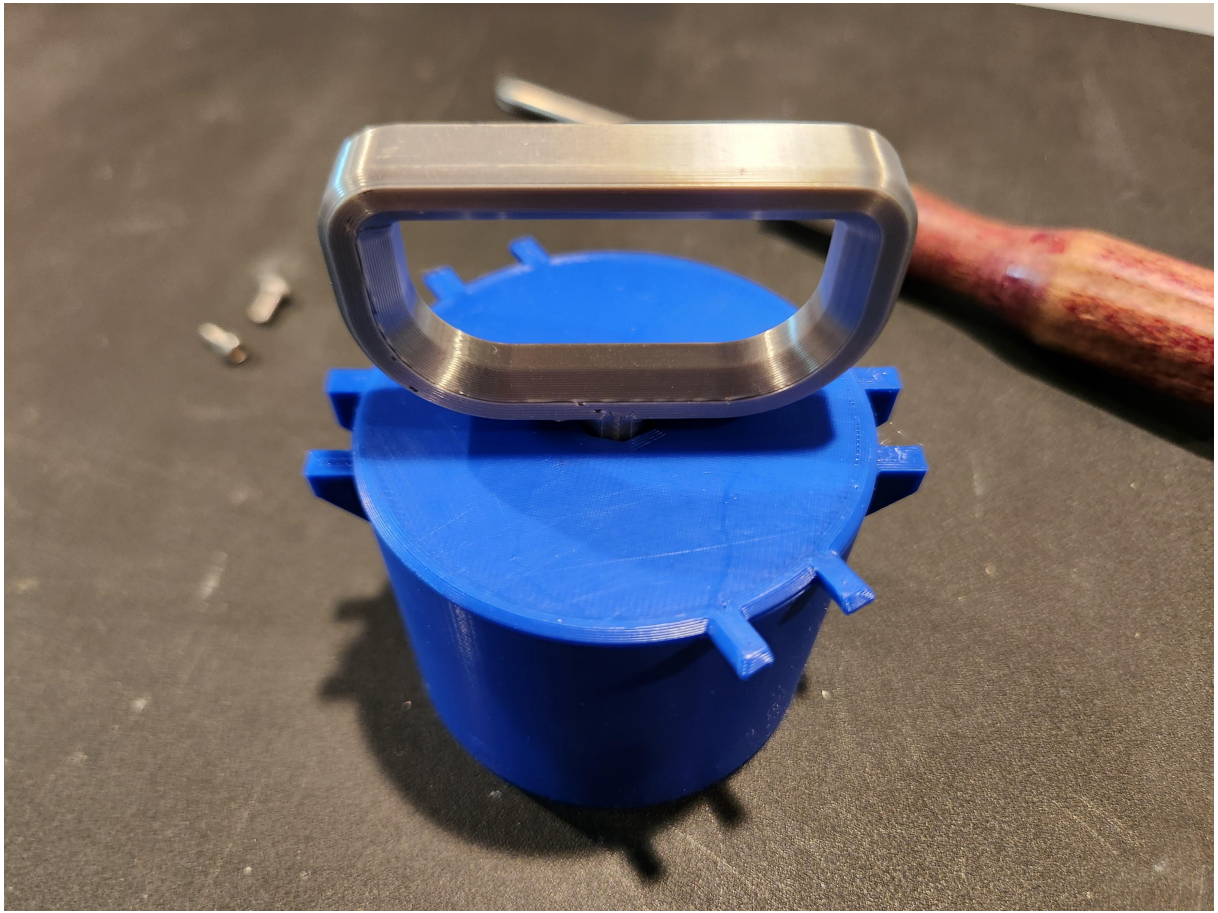
In addition, I've decided to share my parametric Fusion360 file, which you can use to generate these STLs for whatever magnet size you choose. Just open the attached "Transfer Magnet.f3d" file in Fusion360, go to the "Modify → Change Parameters" option, and then adjust the "Magnet_Diameter" and "Magnet_Height" parameters. (Or, if Fusion360 isn't your thing, just let me know in the comments what magnet size you'd like to use, and I'd be happy to generate the STLs for you.)

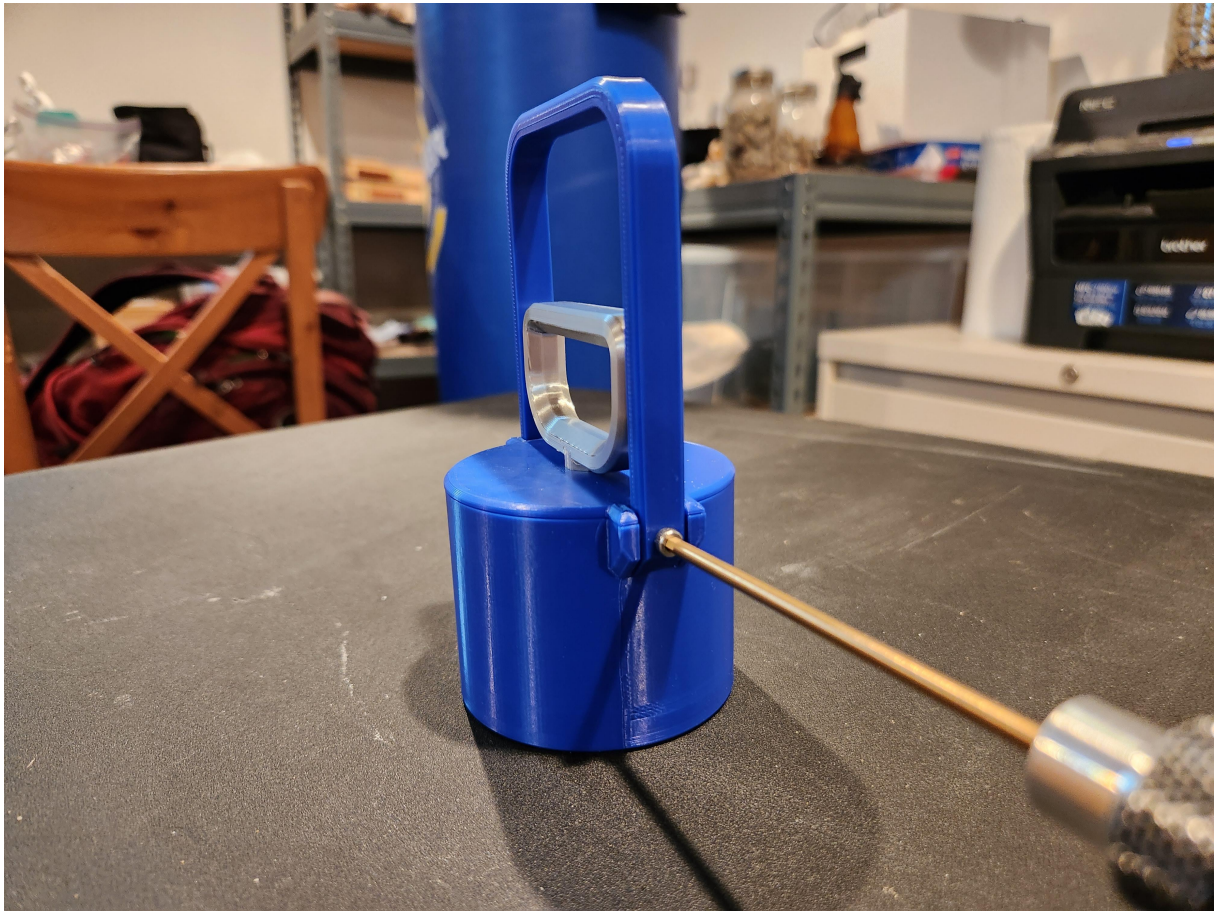
Assembly Tips & Pictures:

1. Slide the "Pull Handle" onto the "Top" piece, rotated so that the handle is lined up with the horizontally extended tabs on the top piece.
2. Attach the magnet to the bottom of the "Top" piece using a small wood screw or M3 bolt, up to 20 mm in length. (Note: if the head on your screw is too small, you can use a washer.)
3. Slide the handle and magnet into the "Case" piece, and orient the pull handle so that it lines up with the lift handle mounts on each side of the case.
4. Line up the clips on the "Top" piece with the gaps on the "Case" piece so that it drops into place, and then rotate the top piece counter-clockwise so that it lines up with the handle mounts as well.
5. Use two 8 mm M3 bolts to attach the "Lift Handle" piece to the case, by just letting the threads on the bolts self-tap into the provided mounting holes on the case.









Model files



transfer-magnet-24-inch-magnet.3mf



case-24-inch-magnet.stl



top-24-inch-magnet.stl



pull-handle-24-inch-magnet.stl



lift-handle-24-inch-magnet.stl



transfer-magnet-32-inch-magnet.3mf



case-32-inch-magnet.stl



top-32-inch-magnet.stl



pull-handle-32-inch-magnet.stl



lift-handle-32-inch-magnet.stl



transfer-magnet.f3d

Print files



transfer-magnet_02mm_pla_mini_4h53m.gcode

PLA 0.40 mm 0.20 mm 4.88 hrs 59 g Prusa MINI / MINI+

License

This work is licensed under a
[Creative Commons \(4.0 International License\)](#)



Attribution

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✓ | Commercial Use
- ✓ | Free Cultural Works
- ✓ | Meets Open Definition