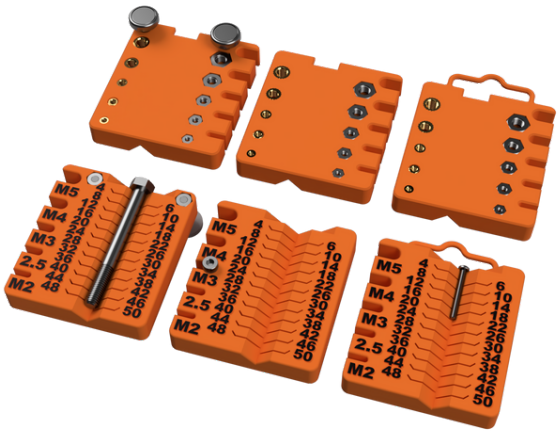
Printables by JOSEF PRUSA



Rapid Metric Screw Measuring Tool (M2-M5, up to 50mm)

fivesixzero

VIEW IN BROWSER

updated 14. 12. 2022 | published 14. 12. 2022

Summary

Measure those fasteners, and fast! A shorter remix of Boogie's remix of Sneaks' execellent Screw Measuring Tool.

1.41 hrs	2 pcs	0.20 mm	0.40 mm	PET	14 g	Prusa MINI / MINI+

Hobby & Makers > Tools

Tags: tool screws screw sorting bolt tools metric ruler bolts m4 m3 heatsetinsert m5 measuring threadedinsert sorter measuringtool diameter measurer nutsandbolts m2 screwsorter nutsnbolts heatsetinserts nutsandboltsstorage

UPDATE: 2022/12/14

No changes in this update, just a **big thank you** to everyone that's downloaded, posted a make, remixed, or re-shared this model!

This was only the fourth model I shared and was the first ‘big project’ I took on while learning Fusion 360. The overwhelmingly positive response and feedback I've received from the Printables community has been amazingly positive and motivating during a challenging time in my own life.

Its just so cool to see over 150 makes of this model that everyone's shared since I first posted ithis in April of this year.

I don't have a Patreon or ko-fi or anything, so if you'd like to show support just post a make, print a remix, or check some of my other work on Printables. Here are a few other projects I shared during this crazy year that I'm particularly proud of:

- Simple case for the Fliper Zero WiFi Dev Board external module
- Rugged travel case for the Snapchat Pixy drone
- Replacement blade guards for the Pixy drone
- Ikea Skadis mounting system using heat-set inserts and printed hooks
- Remix of Adafruit's RPi 4 HQ Camera case to add a big Hyperpixel display to the back

So, again, thank you for your support! Never stop making, remixing, and sharing. :)

Rapid Metric Screw Measuring Tool

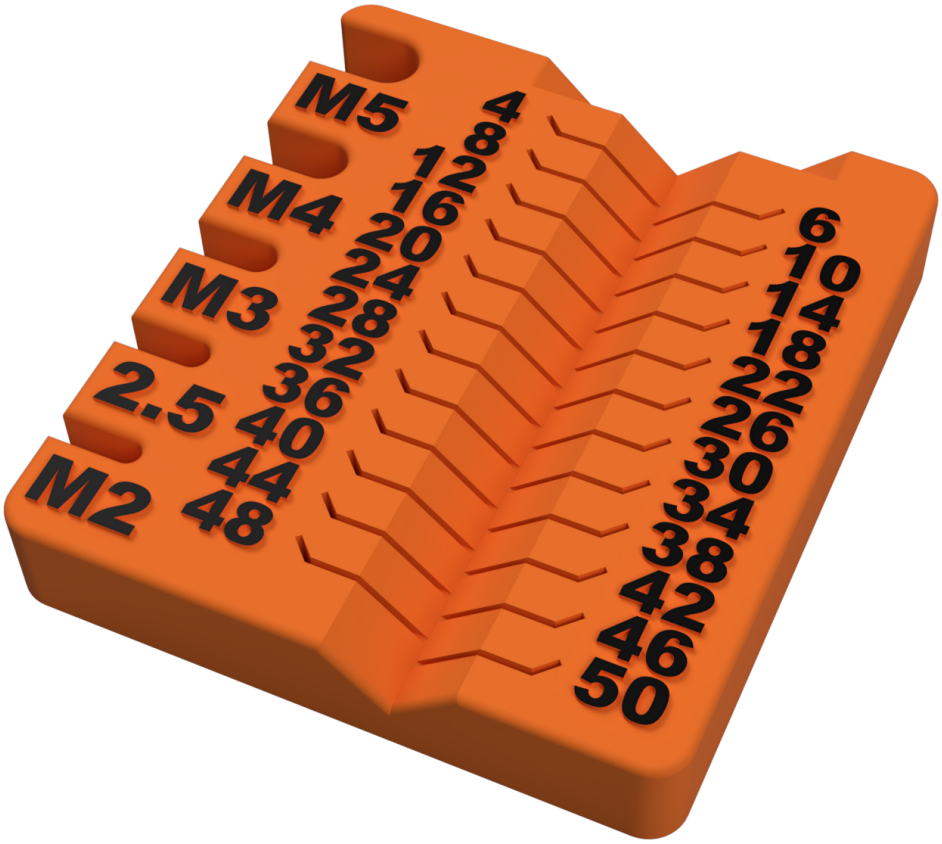
A remix of the already excellent **Screw measuring tool, M2-M10, 4-120mm** by Boogie, itself a remix of **Quickly Measure & Sort M2, M3, M4, & M5 Metric Screws up to 50mm Long** by Sneaks, with some inspiration from FlashTech's “**Screw measuring tool, M2-M5, 4-50mm, MultiColor (MMU)**”.

Remixed Things

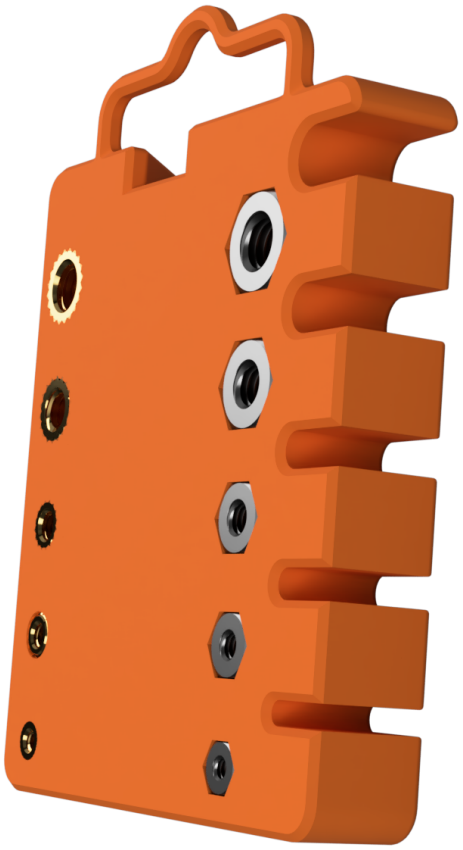
- Not a long boy
- Slightly increased font size on left side labels
- Added recesses on the bottom for quickly identifying most M2-M5 nuts
- Added recesses on the bottom for threaded heat-set inserts to quickly verify thread spacing
- Included a Fusion 360 file full of little tweaks and surprises to accelerate your own remixing adventures!

Options

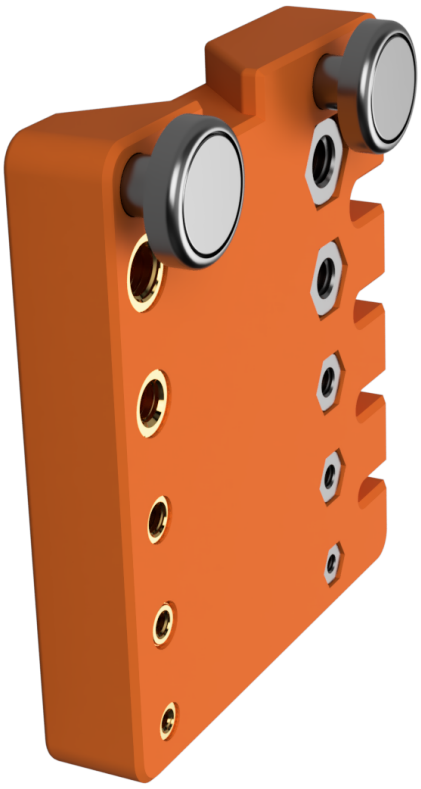
Plain and Simple



Hangin Around



Magnetically Inclined



Printing Advice

This should print fine in just about any flavor of filament.

I used snug supports to keep the bottom-side recesses cozy but you may be able to get away with going supports-free.

edit 2022-07-06: For adding threaded inserts I'd recommend printing with 4+ perimeters to make sure the inserts don't dig in past the socket perimeters, which can weaken their hold quite a bit.

Tested prints with Prusament PETG on a well-worn Prusa MINI+.

Parts List

No parts are required to get a functional measuring device, but threaded inserts are nice. :)

The model was designed around these parts but if you have different inserts on hand then it should be simple to just change the measurements

in the Fusion 360 file (on the “Outline, Nuts & Inserts” sketch) for a customized model.

- M2: McMaster-Carr 94459A120, Ø 3.3mm
- M2.5: CNC Kitchen M2.5 Standard, Ø 4.6mm
- M3: CNC Kitchen M3 Standard, Ø 4.6mm
- M4: CNC Kitchen M4 Short, Ø 6.3mm
- M5: CNC Kitchen M5 Short, Ø 7.1mm
- Mag Feet: Adafruit Mini Magnet Feet

EDIT NOTE: The original post listed the wrong M2.5 insert part, which was updated on 07/06/22 thanks to a helpful comment from @orax. The M2.5 insert socket on this part is made for a 4.6mm diameter insert, like the CNC Kitchen part available from PrusaPrinters, rather than the 4.1mm-diameter McMaster Carr part originally listed. Sorry about that!

This is one of my first models with Fusion 360 so any feedback or recommendations are very welcome. Thanks! :)

This remix is based on

Quickly Measure & Sort M2, M3, M4, & M5 Metric Screws up to 50mm Long

by Sneaks

Screw measuring tool, M2-M10, 4-120mm

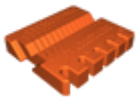
by Boogie

Screw measuring tool, M2-M5, 4-50mm, MultiColor (MMU)

by FlashTech

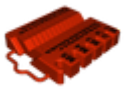
Model files

Main Models 3 files



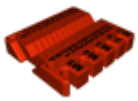
screw-measuring-tool-50mm-m5.3mf

The main event!



screw-measuring-tool-50mm-m5_hook-hanger.3mf

For those times when you feel like just hanging around.

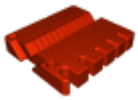


screw-measuring-tool-50mm-m5_mag-feet.3mf

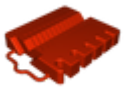
How do magnets even work? Miracles, man.

No Labels & Only Labels

5 files



screw-measuring-tool-50mm-m5_no-labels_mag-feet.3mf



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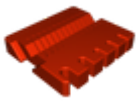

screw-measuring-tool-50mm-m5_no-labels.3mf

screw-measuring-tool-50mm-m5_labels-only.step

screw-measuring-tool-50mm-m5_labels-only.f3d

screw-measurement-plate-50mm-v14.f3d

Where it all came from, and then some

Print files

screw-measuring-tool-50mm-m5_02mm_petg_mini_1h2.gcode

PET 0.40 mm 0.20 mm 1.41 hrs 14 g Prusa MINI / MINI+

Tested to see if slightly reduced rigidity was a good tradeoff for less filament/time - it was!

screw-measuring-tool-50mm-m5_02mm_petg_mini_1h5.gcode

PET 0.40 mm 0.20 mm 1.87 hrs 18 g Prusa MINI / MINI+

Added a filament change for the top two layers to let that text layer sing.

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