

Measurement Locator V1

a artsef

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Summary

So I decided to design & make a fairly simple gadget for not needing to repeatedly measure up and then cut the very...



1.57 hrs



1 pcs



0.20 mm



0.40 mm



PET



18 g



Prusa
MK3/S/S+

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

Tags: [diy](#) [speed](#) [ruler](#) [accuracy](#) [coolingfan](#) [measurement](#)
[line](#) [production](#) [efficiency](#) [locator](#) [uniformity](#)

So I decided to design & make a fairly simple gadget for not needing to repeatedly measure up and then cut the very many strands of wire of a particular length. - Measure up once, set it and use it to cut wires etc. as many times to the same length as needed.

The irksome nature of having to repetitively measure and cut the same lengths of resources like wire, strips of insulation etc. can result in differing measurements if a 'stop' isn't used, leading to difficulty in such lengths reaching their intended connections in tight spaces. It is also very useful if one keeps forgetting a desired measurement which may be needed later...

With this device, it is possible to maintain uniformity of length while speeding up the preparation process.

The same item bought on eBay can easily cost around £10, whereas a 3D printed version can cost well under a third of that!

I chose to make this one using PET as this is somewhat stronger than PLA, being less brittle and thus more durable.

The recess is 1mm deep and 25mm wide, the same cross-section of the 'Fisher' brand of stainless steel rulers. The locator footprint is about 30mm wide by 57.5mm long.

There are 3 machine screws needed:

(1 off) M5x25mm slotted pan head with 1x M5 flat washer, 1x M5 spring washer and 1x M5 wingnut.

and

(2 off) M3x18mm countersunk, with 2x M3 spring washers and 2x M3 'nyloc' nuts.

Operation of the unit is by lining the edge of the locator along/ over a desired particular millimeter measurement, e.g. 100mm (as per photo), tighten down the wingnut to lock the locator in place and then cut the wire etc. at/ along the short edge/ end of the ruler.

Thus, once the measurement is set, you don't need to keep measuring up myriad wires, since they'll all be the correct length - if the setting isn't changed.

Print Settings

Printer Brand:

Prusa

Printer:

i3 MK3

Rafts:

No

Supports:

Doesn't Matter

Resolution:

0.2mm

Infill:

15%

Filament:

[

**Generic PETG PETG](<http://www.amazon.com/s?url=search-alias&field-keywords=Generic+PETG+PETG&tag=thingiverse09-20>)
Colour to suit.**

Notes:

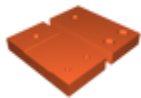
I used brims, just to be sure.

Post-Printing

Depending on the steel ruler used, there may be some fine adjustment needed with a flat file, but as per my own ruler, it slots into place perfectly without any forced 'persuasion'.

Category: DIY

Model files



measurement_locator_v1.stl

Print files



measurement_locator_v1_02mm_petg_mk3_1h34m.gcode

⚙ PET ⚙ 0.40 mm ⚙ 0.20 mm ⌚ 1.57 hrs ⚖ 18 g 🖨 Prusa MK3/S/S+

[Find source .stl files on Thingiverse.com](https://www.thingiverse.com/thing/1000000)

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