



Wire Straightener



Audi

[VIEW IN BROWSER](#)

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Summary

Wire straightening hand tool. Two colors are shown for clarity.



1.89 hrs



1 pcs



0.20 mm



0.40 mm



PLA



13 g



Prusa
MK3/S/S+

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Tags: [tool](#) [straightener](#) [wire](#)

Wire straightening hand tool. Two colors are shown for clarity.

All press-fit parts. No supports are needed, but I did use a 3 mm brim. Also, I placed the three "rollers" close together so their brims touched. The idea is to create an even larger adhesion layer.

There are two roller styles. "Wire Straightener-Roller-3" has three "doughnuts." "Wire Straightener-Roller-4" has four. Notice in the photos that one of the two Roller-4s is flipped compared to the other.

There are two link lengths. Print only one of the lengths. "Wire Straightener-24-30 AWG Link" holds the rollers apart just far enough that the doughnuts don't touch. "Wire Straightener-18-24 AWG Link" holds the

rollers a bit farther apart to fit larger gauge wires. These two lengths were determined empirically (by trial and error) using a very small sample of wires. Your printer's characteristics and the insulation variations of your wires will likely affect performance.

Print List

- (1) Roller-3
- (2) Roller-4
- (4) Links (of the same length)
- (4) Washers
- (6) Pins

Assemble as shown in the photos above. Use washers to keep links straight. The order of the rollers is not important, I put the 3-doughnut roller in the middle. What is important is that the two 4-doughnut rollers are assembled in the opposite orientation.

I found that a fingernail file (sandpaper on a stick) works great at removing burrs from the pins. This makes assembly easier.

The straightener is super easy to use. Open the straightener, lay the wire across the rollers lengthwise, close the straightener and pull the wire through. There are plenty of videos demonstrating the procedure. Just search for "wire straightener."

Print Settings

Printer Brand: Prusa

Printer: I3 MK3S

Rafts: No

Supports: No

Resolution: 0.2 mm

Infill: 15%

Filament: [AmazonBasics PLA](#) Red and Yellow

Notes:

I sliced using three perimeters for added strength.

Model files



wire_straightener-roller-3.stl



wire_straightener-roller-4.stl



wire_straightener-18-24_awg_link.stl



wire_straightener-24-30_awg_link.stl



wire_straightener-washer.stl



wire_straightener-pin.stl



wire-straightener.3mf

Print files



wire_straightener_04n_02mm_pla_mk3s_1h54m.gcode

⊗ PLA ⊕ 0.40 mm ≡ 0.20 mm ⌚ 1.89 hrs ⚖ 13 g 🖨 Prusa MK3/S/S+

[Find source .stl files on Thingiverse.com](#)

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