Wire Stripping

How to Strip a Wire
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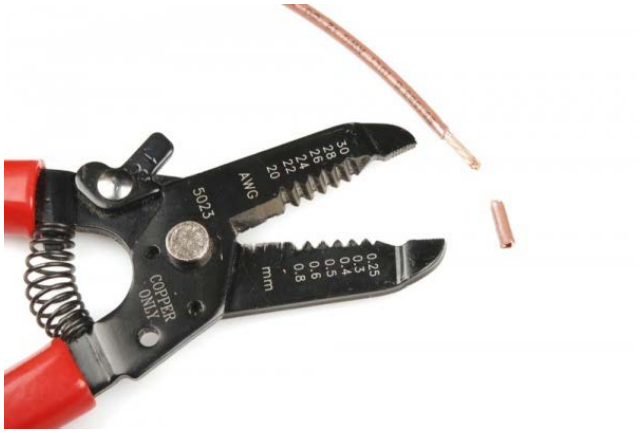
Safe, durable electrical connections begin with clean, accurate wire stripping. Removing the outer layer of plastic without nicking the wires underneath is critical. If a wire does get nicked, the connection may break or an electrical short may occur.

No nicks or gouges. These wires have been properly stripped.

The Tool

A simple manual wire stripper is a pair of opposing blades much like scissors. There are several notches of varying size. This allows the user to match the notch size to the wire size, which is very important for not damaging the wires.



Warning: Many wire strippers found at the hardware store do not strip small-gauge wire (22 to 30). When getting into prototyping, be sure to get a tool that is capable of stripping 22 AWG (American Wire Gauge) and smaller. Being able to strip very small 30 AWG wire (also known as wire wrap wire) is a plus.

Although a knife would also strip the wires, it might also damage them by nicking the metal or cutting into it. Using a knife to strip wire is also really dangerous! The knife can easily slip and cause wicked injuries.

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Stripping the Wire

By simply squeezing the handles together about ¼" (or the desired length) from the end of the wire, using the correct notch on the tool, and then twisting the tool slightly, the insulation will be cut free.

Then by pulling the wire strippers towards the end of the wire, the insulation should slide right off of the wire.

Tips, Tricks, and Hints

It is important to match the size of wire to the correct notch in the stripper. If the notch is too large, the wire will not get stripped. If the notch is too small, there is a risk of damaging the wire. Using an undersized notch means the strippers will close too far, digging into the wire underneath. With stranded wire, the tool will cut off the outer ring of wires, decreasing the total diameter of wire and reducing the strength of the wire. A nick in solid-core wire will severely reduce the strength and flexibility of the wire. The likelihood of the wire breaking upon being bent increases significantly.

If a wire accidentally gets a nick in it, the best plan of action is to cut the damaged part of the wire off and try again.