

EL Wire



suppliers

<http://www.coolight.com> JRS discount

<http://www.livewireneon.com/> LA based

<http://coolneon.com/> Great customer service

Soldering

Safety	Light, Fumes, Heat
Solder	"to make solid"
Mechanics	electronic and structural
Tinning	cover connections with a bit
Re-Flow	applying heat to melt existing solder.
	Heat wire, not solder

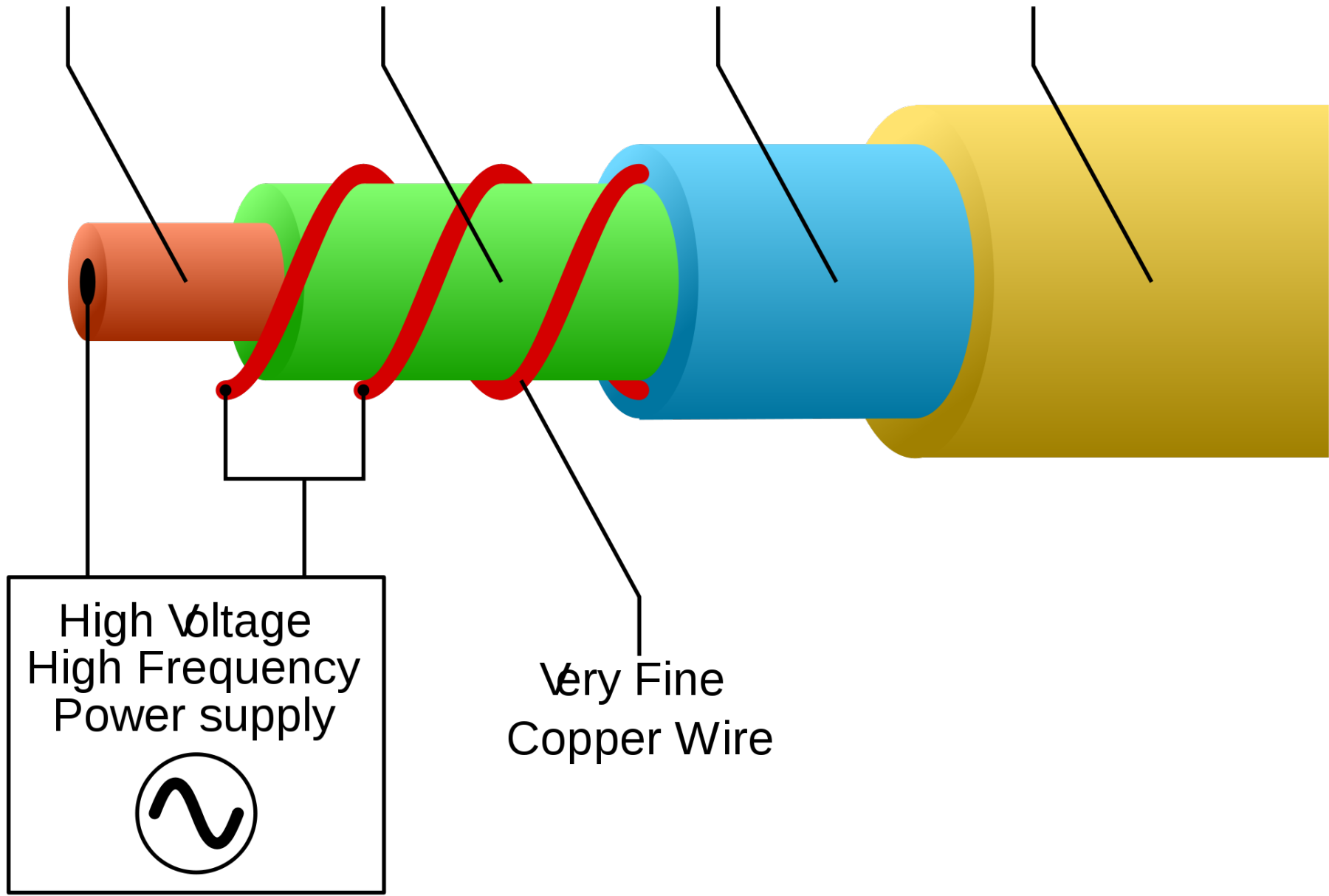
EL Wire Composition

Copper
Core

Phosphor
Coating

Clear Protective
Sleeve

Colored PVC
Sleeve



EL Wire Vocab

copper core or magnet wire

thickness varies

phosphor

glows pink or blue

corona wires

two 40 gauge tricky wires

clear sheath

stability and structure

colorful softer sheath

adds color and size varieties

driver

provides alternating current
of

90 - 120 volts at about
1000Hz

EL Tools - Specialty

Automatic wire strippers

great for sheath removal
without damaging the corona
wires

helping hands

hold the soldering iron so you
don't have to

hot hot glue gun

makes heat shrink work
better

buttoneer

lazy way to attach el to
clothing and great for field
repairs

EL Tools

automatic wire strippers



helping hands



buttoner



hot glue gun



EL Types

1.5mm	too fragile, cording foot
2.5mm	standard, a little fragile
5mm	super strong
tail wire	made for sewing, but you must plan ahead

EL Wire Class Supplies

5 feet el wire

1 el driver

batteries
???

heat shrink



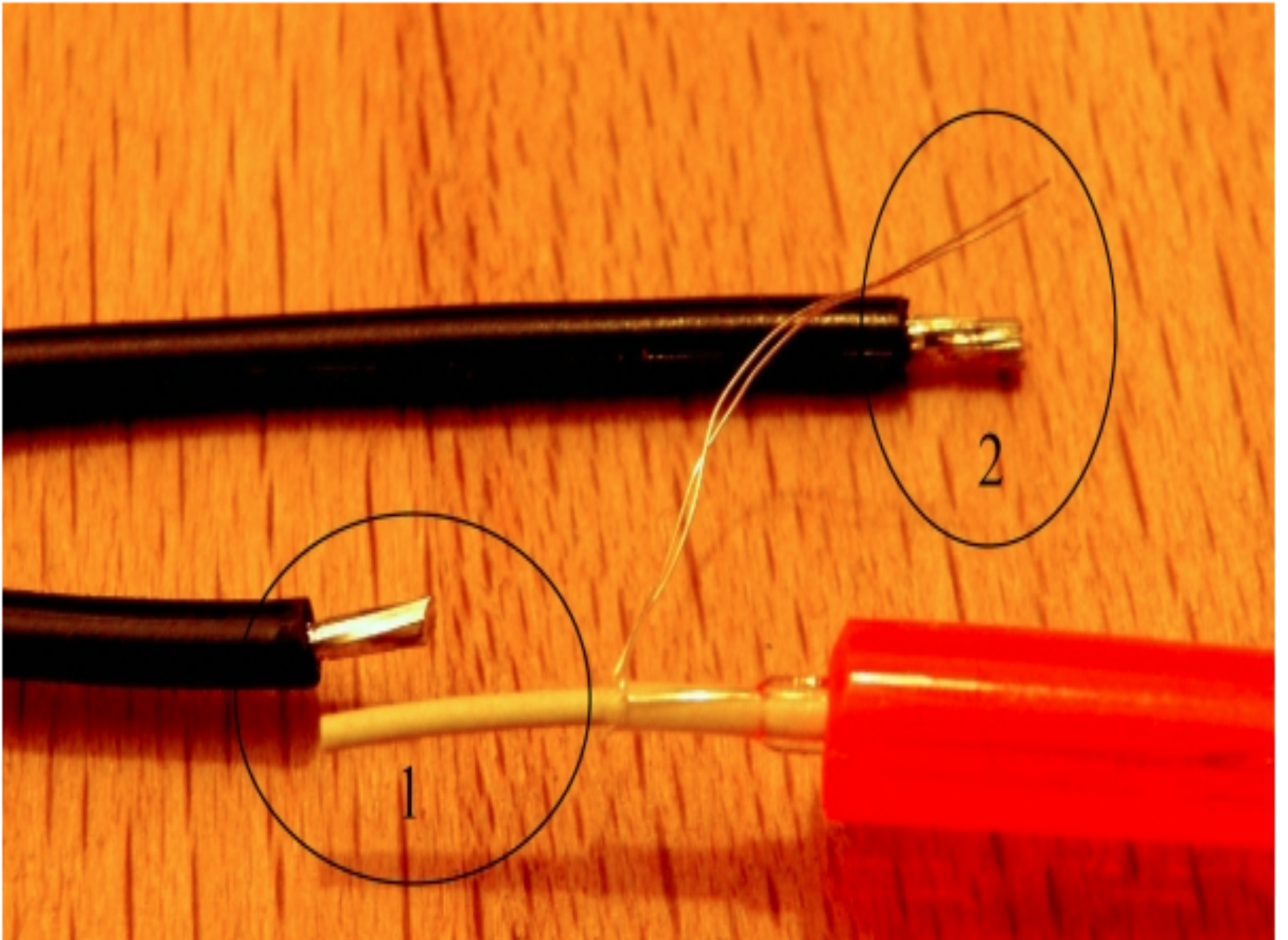
Steps

1. expose wires
2. tin
3. add heatshrink
4. solder
5. secure

Steps

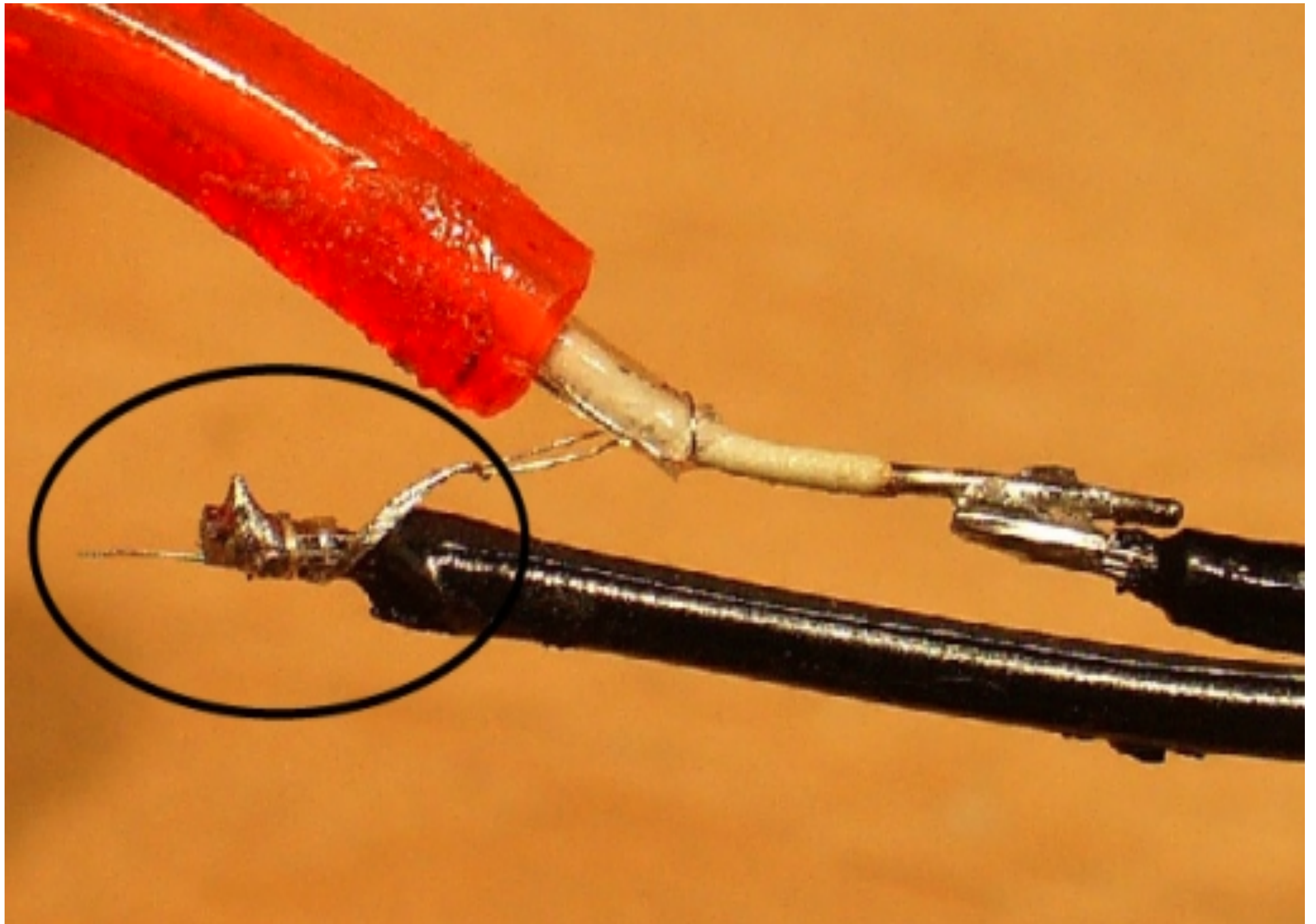
Strip outer coating
Strip inner coating, revealing
core and two corona wires
Use a good wire stripper
Test corona wires
Scrape or BURN phosphor
off main wire
Thread heat-shrink tubing for
later use
A hands-free device
A simpler device

Thread heat-shrink tubing
Pre-tin core wire
Solder core wire
Trim sharp edges
Test the core connection
Solder corona wires
twist corona wires about the
tinned connection
Apply heat-shrink tube
Use some heat gun, lighter,
or side of soldering iron

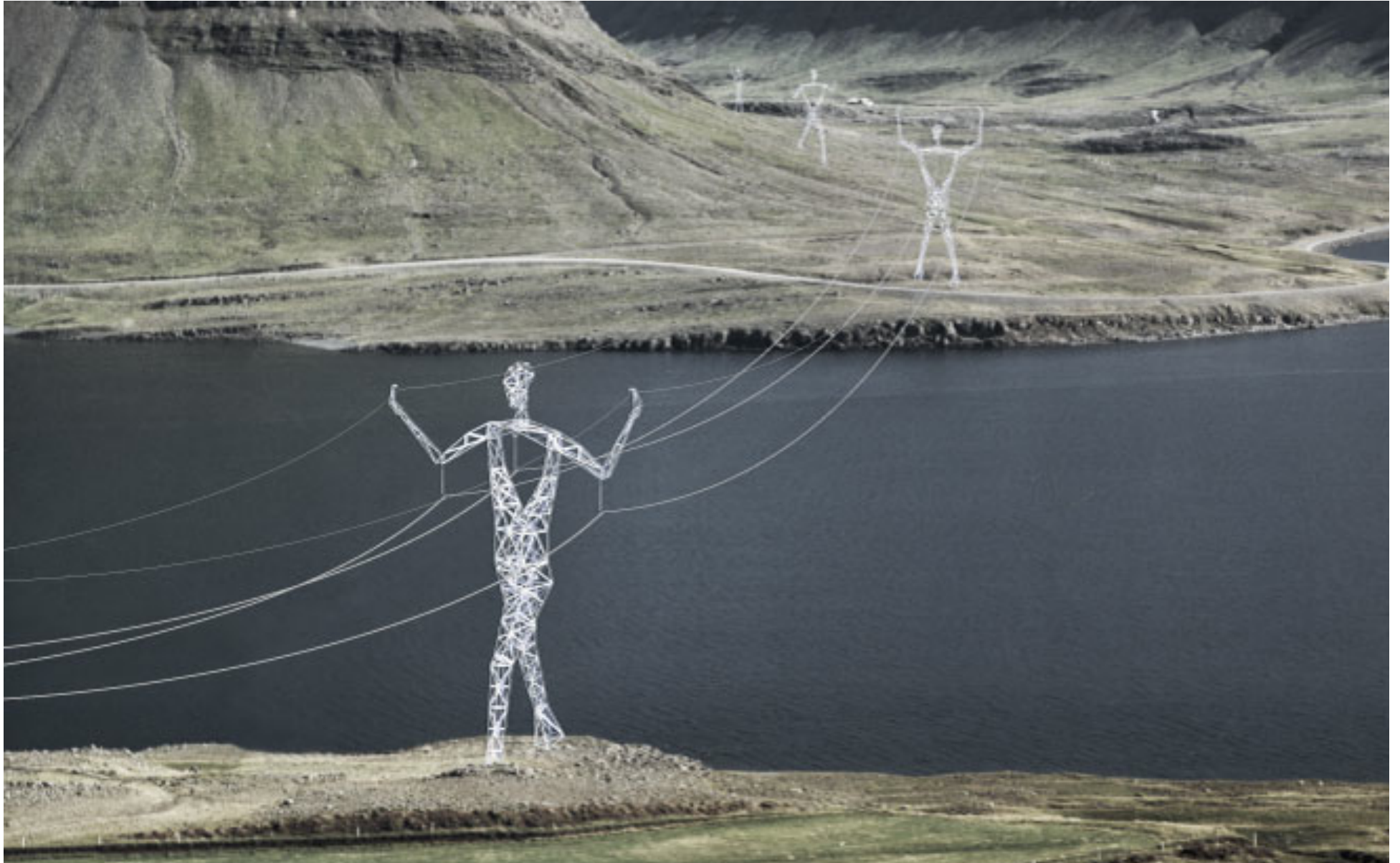


have you added heat shrink yet?





Add Power (EL Driver)



Sources

- http://en.wikipedia.org/wiki/Electroluminescent_wire
- <http://www.youtube.com/watch?v=MPDpl72RAhQ&feature=related>
- <http://www.gadgetcracker.com/2009/06/how-to-iphone-touchosc-pure-data-ableton-live/>
- http://blog.makezine.com/archive/2010/08/how-to_make_your_own_el_wire
- <http://coolneon.com/SolderGuide.html>
- http://blog.craftzine.com/archive/2007/12/hot_glue_sculpture.html