



How to Repair a Break in the Wire of a Foil/Sabre Fencing Body Cord

Repair a break in the end of the wire of a foil and sabre fencing body cord.

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INTRODUCTION

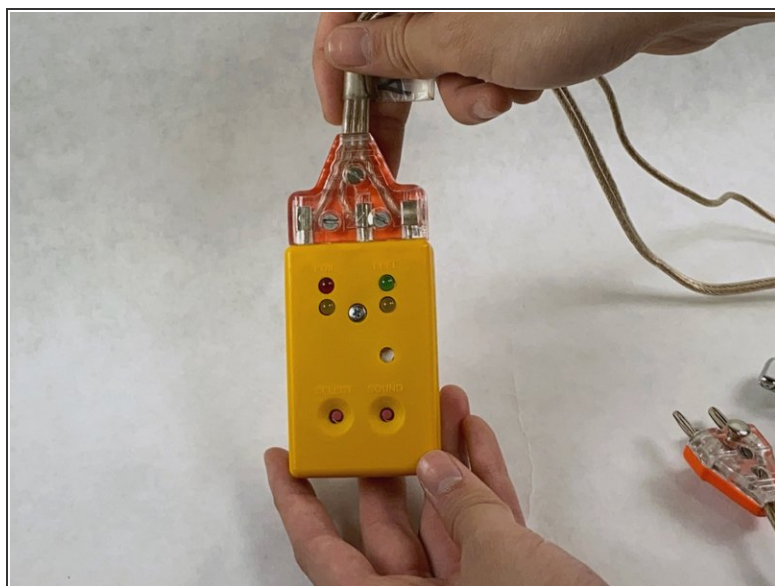
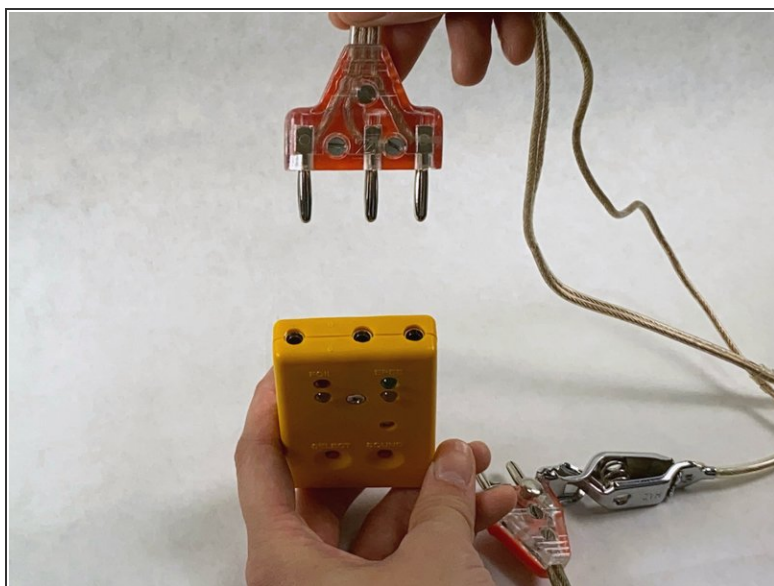
In the sport of fencing, damaged body cords cause the electrical scoring system to fail. Since functioning body cords are required for all official fencing tournaments, fencers should always have their gear in working condition.

The most common type of damage to body cords is a break in the end of the wire, which is a simple fix. If the break is in the middle, you may need to buy a new cord if the remaining length is not enough. Use this guide to diagnose your body cord for foil/sabre and repair it if the damage is at the end of the wire.

TOOLS:

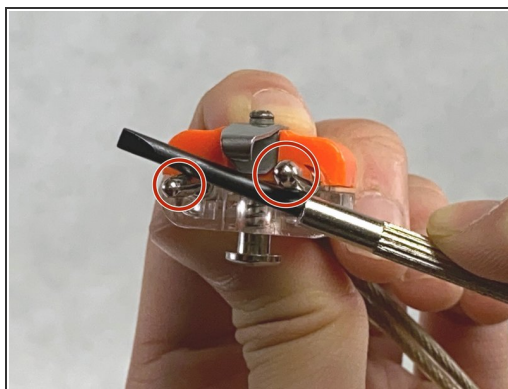
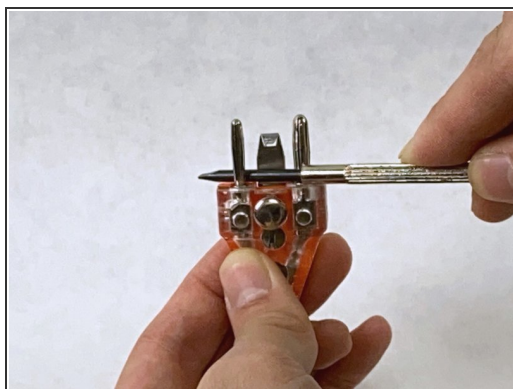
- [Wire Stripper](#) (1)
 - [1 x 2.5mm Precision Slotted Screwdriver](#) (1)
 - [1.5mm Precision Slotted Screwdriver](#) (1)
 - [Fencing Testing Box](#) (1)
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Step 1 — How to Repair a Break in the Wire of a Foil/Sabre Fencing Body Cord



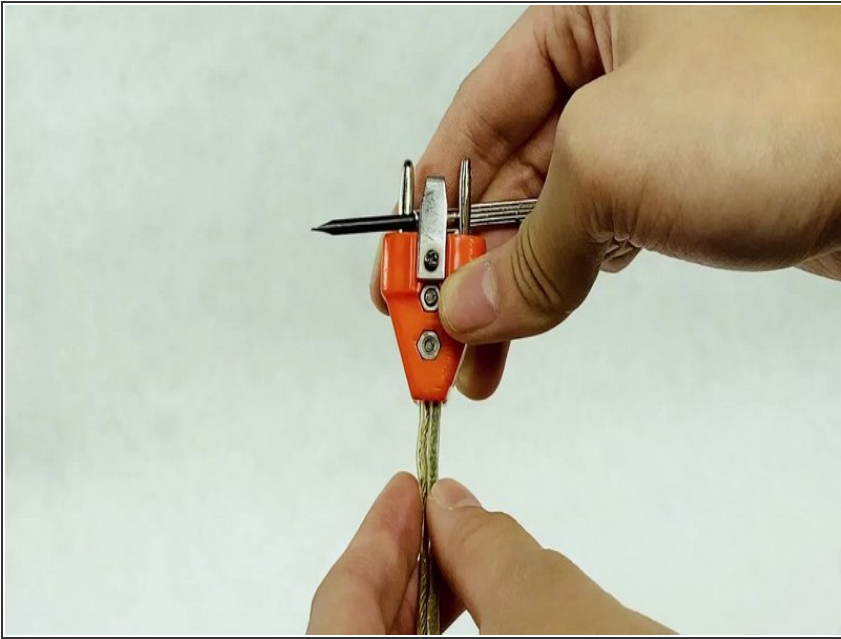
- Insert the three-pronged end of the body cord into the testing box.

Step 2



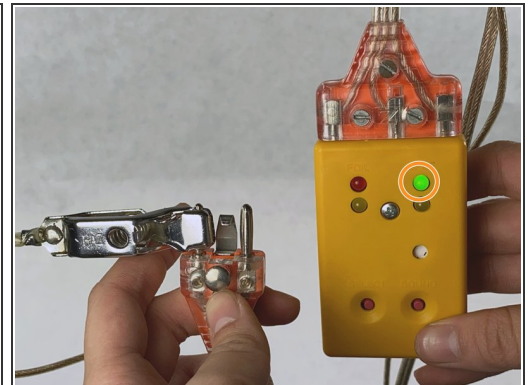
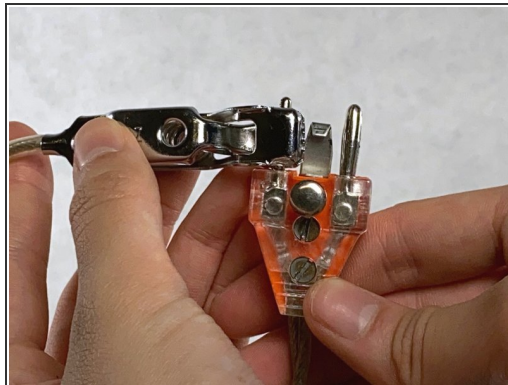
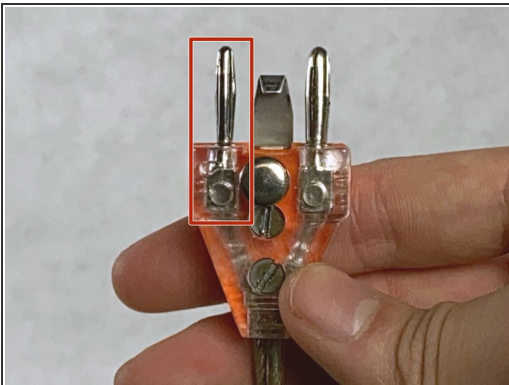
- To test the two-pronged end, place and hold a conductive object (e.g. a screwdriver) in between both pins.
- ⓘ Make sure that the conductive object is in constant contact with *both* of the pins.
- Observe the red light on the testing box. If the wires in the two-pronged end of the body cord are functional, the red light on the testing box should be steady.

Step 3



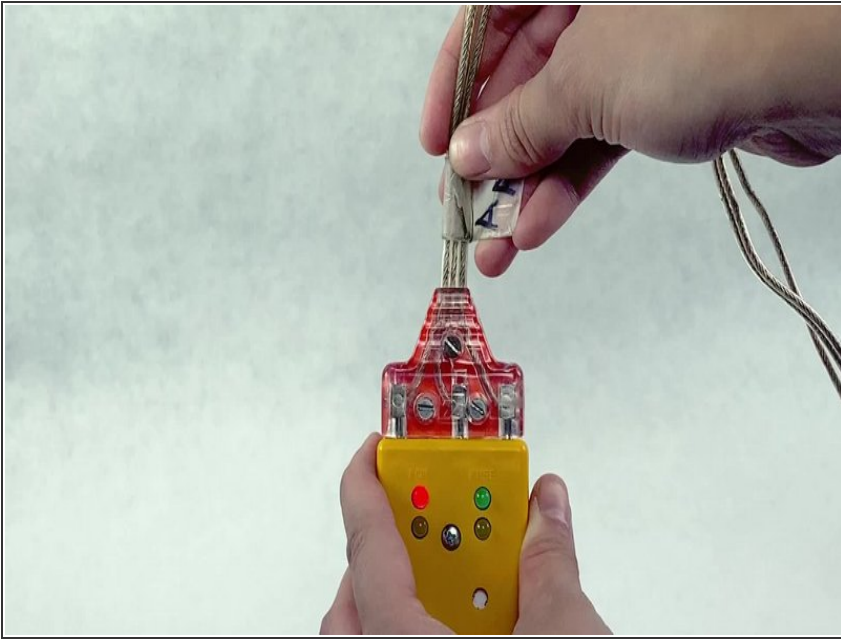
- To test for breaks in the two-pronged wire, keep the conductive object in contact with both pins and move the cord in all directions beginning at the two-pronged end until you reach the end of the cord.
- Keep an eye on the red light on the testing box. If you encounter a problem area in the wire, the red light will flicker or turn off.
- Take note of the location of the break in the wire when the red light begins to flicker or turn off.

Step 4



- Attach the alligator clip to the smaller pin on the two-pronged end.
 - Observe the green light on the testing box. If the wires inside of the alligator clip are functional, the green light on the testing box should be steady. Otherwise, the green light will flicker or not turn on.
- i** If the break is close to the alligator clip, you will need soldering which will not be covered in this repair guide.

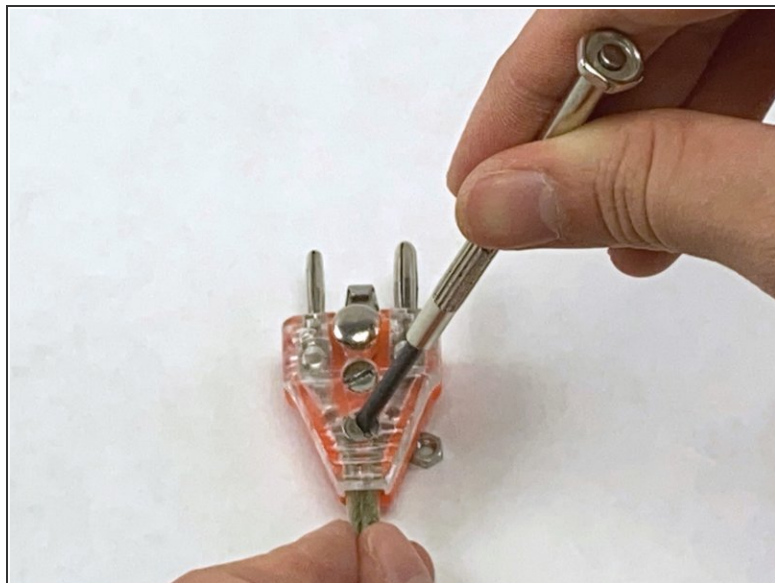
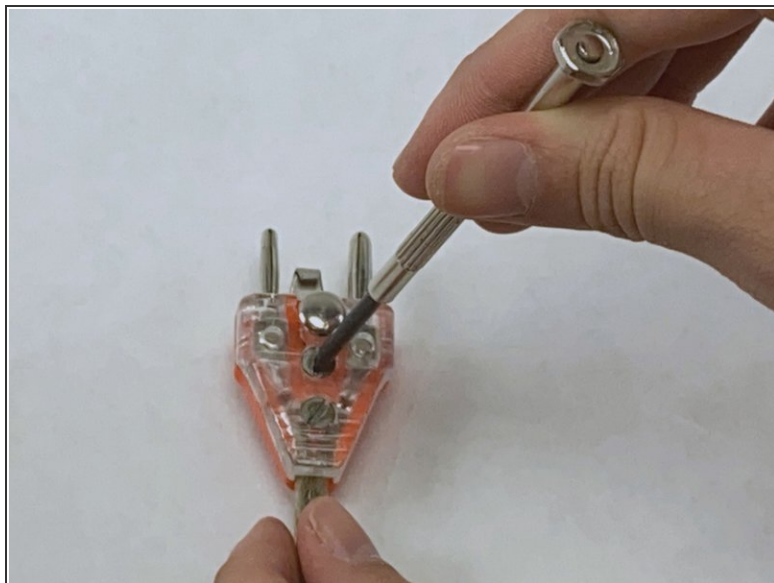
Step 5



- While keeping the alligator clip in contact with the smaller pin, move the cord in all directions beginning at the three-pronged end until you reach the end of the cord.
- Keep an eye on the green light on the testing box. If you encounter a break in the wire, the green light will flicker or turn off.
- Take note of the location of the break in the wire when the green light begins to flicker or turn off.

- ① You have now completed the diagnostic procedure! The break could either be on the wire close to the end of the alligator clip or the two or three-pronged end.
- ① If the break is close to the alligator clip, our guide does not cover the repair. We will cover the repair for the break close to the two-pronged end. The process for the three-pronged end follows the same process.

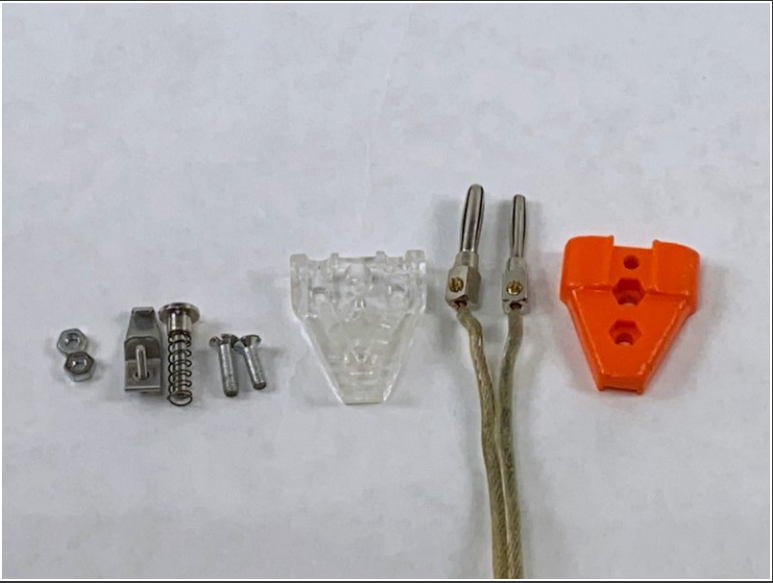
Step 6



- Use a slotted screwdriver to unscrew the screws in the plastic casing of the either the two-pronged or three-pronged end of the body cord depending on which side of the wire has the break.

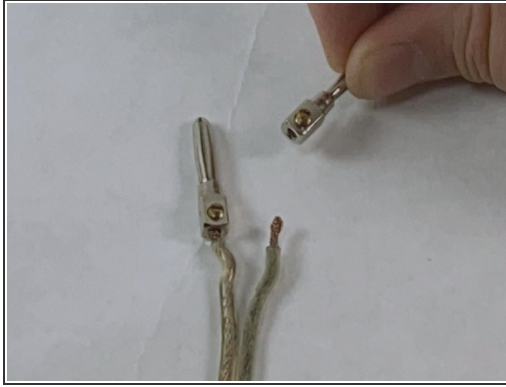
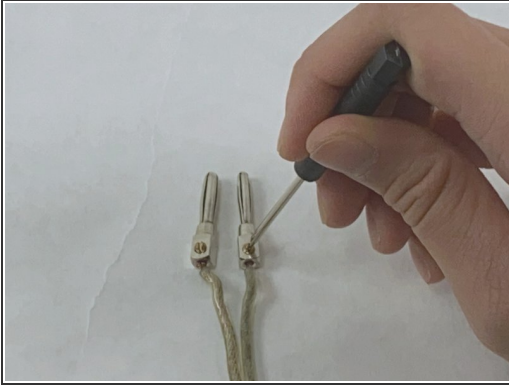
 Keep track of any washers and screws that you take out.

Step 7



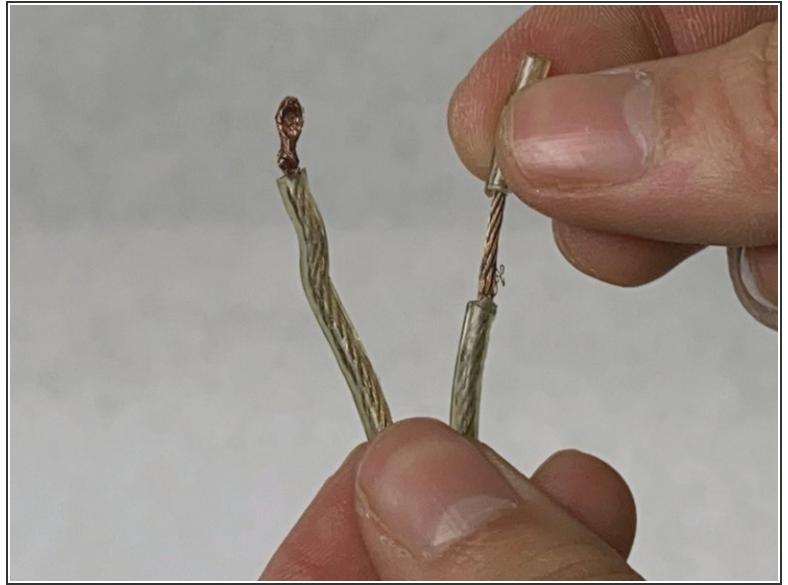
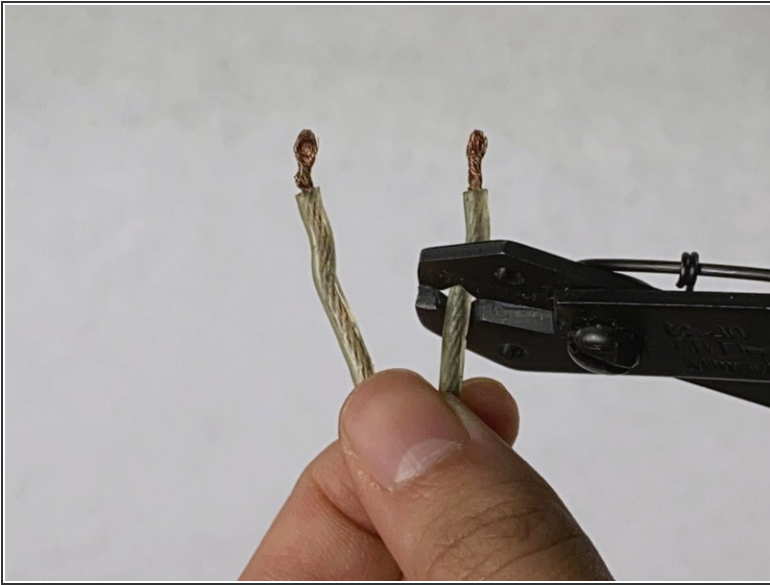
- Unscrew the metal clip.
- ⓘ The end of the body cord should be disassembled as depicted.

Step 8



- Partially unscrew the screws in the pins.
- i You should be able to pull off the pins from the wires easily when the screws are partially unscrewed.
- Remove both the pins from the wires and set them aside.
- ★ Keep note of which wire corresponds to which pin. If you reassemble the cord with the wires in the wrong pins, the scoring system will fail.

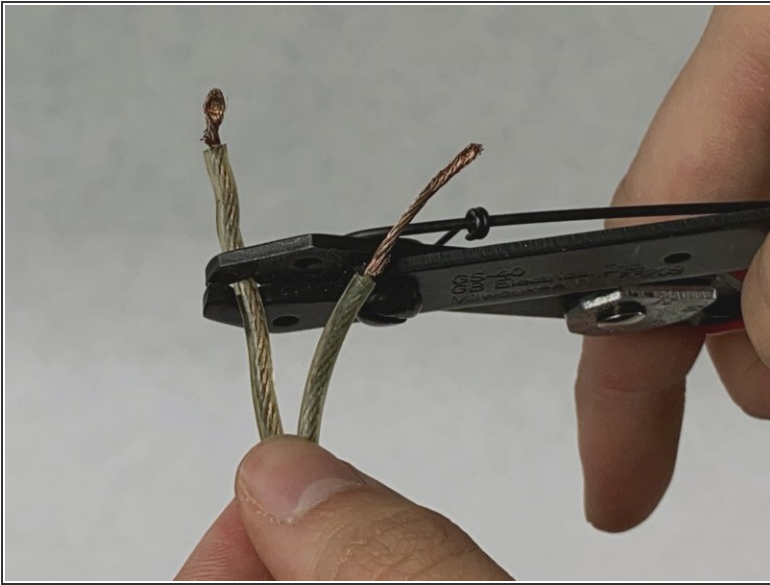
Step 9



 Practice caution when using the wire stripper to avoid cutting or scraping yourself.

- Use the wire stripper to strip the plastic wire insulation about one inch below the location of the break.
- Pull the plastic wire insulation off to expose the wire and its break.

Step 10



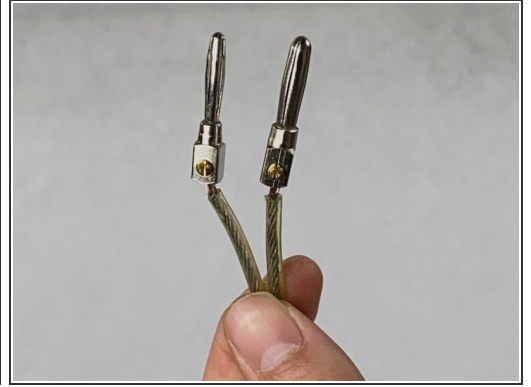
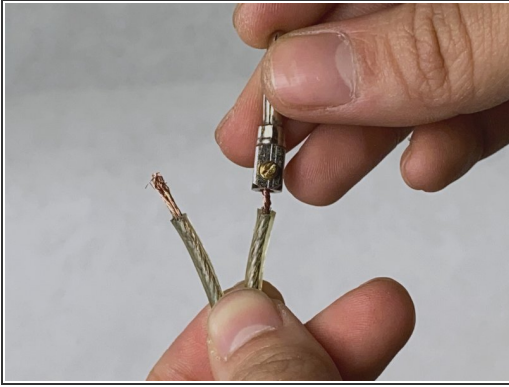
- Repeat the above process for the second wire.
- ⓘ The length of exposed wire should be about the same across all wires.

Step 11



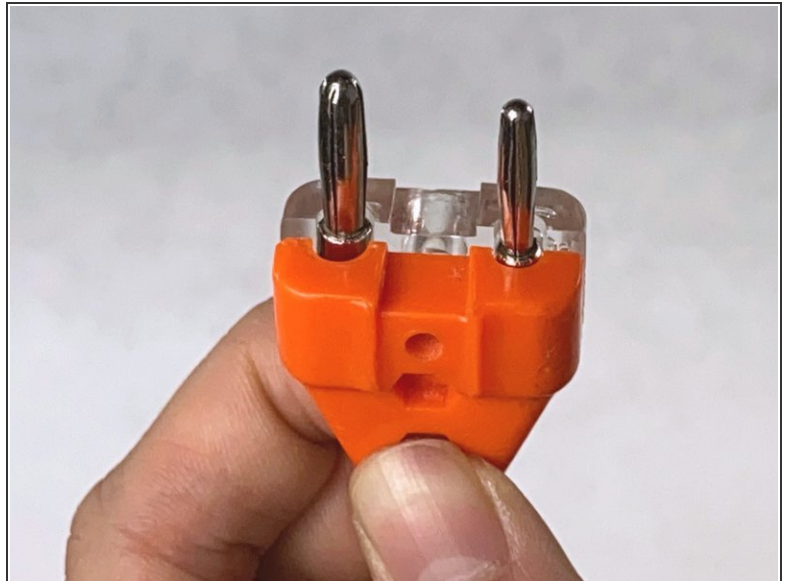
- Cut the wire below the break while leaving about an inch of usable wire exposed.
- Cut the second wire to make the wires approximately even in length.

Step 12



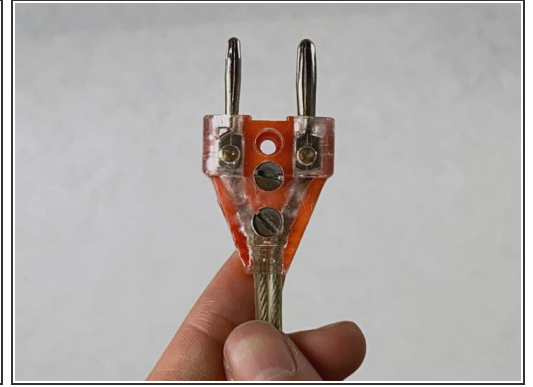
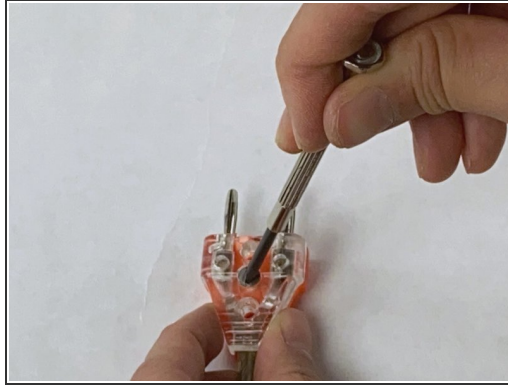
- Slip the wires back into the pins. Make sure you put the wires back into the pins they were originally in.
- Screw the pins back into place.
- ⓘ Make sure the pins are screwed tight enough to securely hold the wires in place.

Step 13



- Place the pins back into their appropriate spots in the plastic casing.
- Cover the pins with the other half of the plastic casing.

Step 14



- Put the washers in place.
- Screw the two screws for the plastic casing back into place.

Step 15



- Reinsert the button.
- Reinsert the metal clip.
- Screw the metal clip back into the button.

The body cord should now be fully functional! Repeat diagnostic steps using the fencing testing box to confirm the cord works.