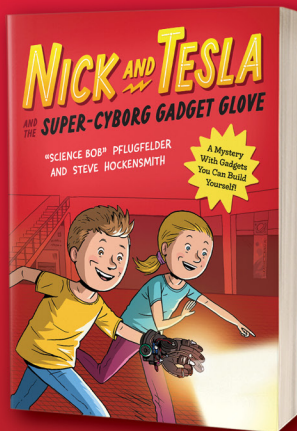


NICK AND TESLA

GET STARTED ON YOUR OWN
SUPER-CYBORG GADGET GLOVE,
JUST LIKE THE ONE TWINS NICK AND TESLA
USE IN THEIR ADVENTURES!



Complete this
activity to create
the first finger
on the glove:

The Nick Signal!

Be sure to pick up *Nick and Tesla and the Super-Cyborg Gadget Glove* to learn how to make the rest of the glove! Available wherever you buy your books. Learn more at QuirkBooks.com.



NICK AND TESLA'S

SUPER-CYBORG GADGET GLOVE

FINGER #1 (INDEX FINGER): THE NICK SIGNAL

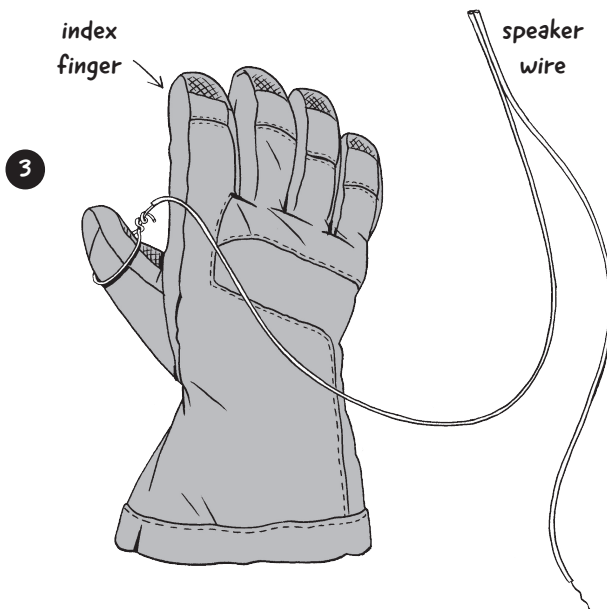
THE STUFF

- 6 inches (15 cm) of 24-gauge solid speaker wire (you'll need more for other projects, so buy a roll)
- Wire strippers
- A comfortable, not-too-tight, not-too-bulky glove (see note below)
- Hot-glue gun
- Scissors
- 1 10-mm ultra-high-brightness white LED bulb
- 1 CR2032 3-volt button battery
- Electrical tape

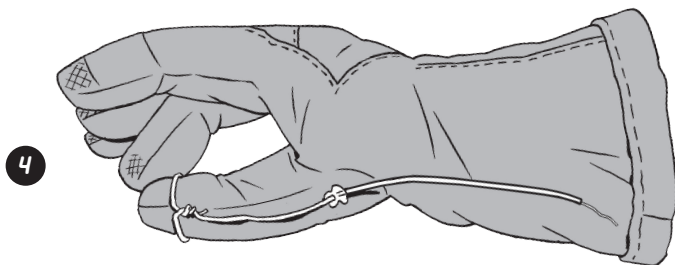
NOTE: You should carefully choose the glove that will act as the base for your super-cyborg gadget glove. It should be comfortable and allow you to easily move your fingers. A larger glove will give you plenty of space to attach all your gadgetry, so try one that's a little bit big for your hand. Choose a glove that isn't too thick, and avoid one made from fuzzy fabric such as wool or fleece; the fuzz will make it harder for the wires to make contact. Be sure to check with your parents before gluing wires, batteries, and other stuff onto anything from your family glove drawer!

THE SETUP

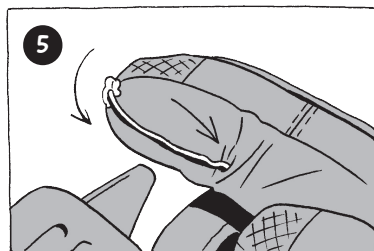
- 1.** The speaker wire consists of two joined plastic-coated strands. Pull the strands apart so that you end up with two plastic-coated wires.
- 2.** Remove the plastic coating from the end of one of the wire strands, leaving enough bare wire to make a loop around the thumb of the glove (probably about 2 inches [5 cm]).
- 3.** Loop the bare wire around the tip of the glove's thumb (check the length while wearing the glove to make sure the loop is big enough) and twist the end around the wire to secure it. Hot-glue the wire to the glove in a few spots to secure it.



4. Run the plastic-covered part of the wire down the outside of the thumb toward the wrist and cut it so that it ends near the wrist. Remove about $\frac{1}{2}$ inch (1.25 cm) of the plastic coating from free cut end. Hot-glue the wire in place somewhere on the side of the thumb.



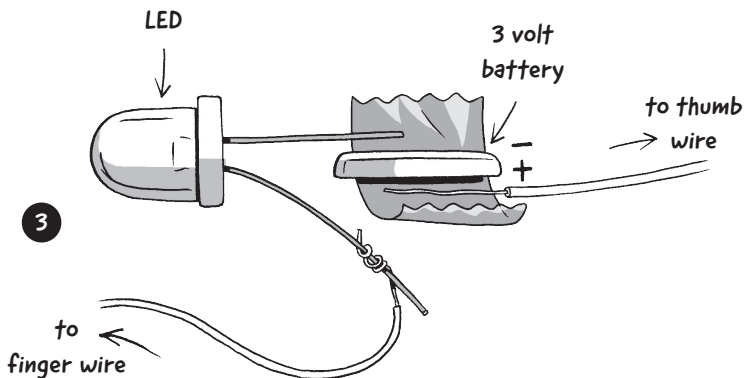
5. Take the other strand of separated speaker wire from step 1 and remove about 1 inch (2.5 cm) of the plastic coating from one end. Bend the bare wire over the glove's index finger so that the free end is on the underside of the finger.



- Poke the end of the bare wire into the glove to help secure it; glue some of the plastic-covered wire to the glove fingertip. (Don't cover the bare wire.)
6. Bend the free length of this wire so that it runs down the back of the index finger. Cut it so that it ends at the base of the finger. Remove about $\frac{1}{2}$ inch (1.25 cm) of the plastic from the free end.

THE FINAL STEPS

1. Place the LED on the index finger on the knuckle closest to the hand, facing the fingertip. Twist the free end of the wire attached to the index finger around the longer (positive) LED wire.
2. Cut a piece of leftover separated speaker wire that is long enough to reach from the LED to the free end of the wire attached to the thumb. Remove about $\frac{3}{4}$ inch (2 cm) of plastic from each end of this wire.
3. Place the short (negative) wire of the LED on the top (negative side) of the battery. Place one end of the free wire that you just cut underneath the battery against the bottom (positive side). Wrap electrical tape around the LED's negative wire, the battery, and the end of the free wire. Leave the other (positive) LED wire (that you connected to the index finger wire in step 1) outside the tape.



4. Adjust the LED so that it points forward when you bring together the tips of your thumb and index finger. Secure the light to the index finger by wrapping electrical tape around the battery and LED connections and around the whole finger. Keep the positive LED wire from touching the battery.
5. Twist the remaining free wire end around the free end of the thumb wire. Cover all twisted-together wires with electrical tape.
6. To activate the Nick Signal, touch the tip of your thumb to the tip of your index finger so that the bare wires connect. When the wires make contact, you complete an electrical circuit, which powers the light.

