

Learn-A-Skill



Electrical



Skills
Exploration
Days

TOOLS & MATERIALS

- electricity maker kit
- electrical tape
- wire strippers
- PVC pipe
- cardboard

SAFETY EQUIPMENT

- safety glasses
- gloves

SKILLS TO LEARN

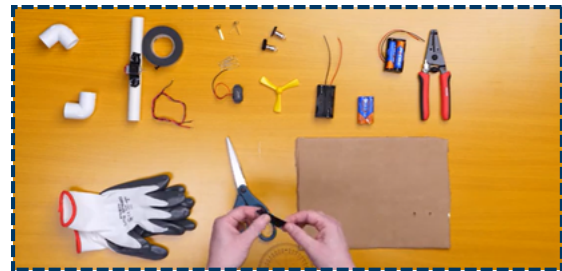
- How to create electrical circuits

Check out the
instruction
video here!



STEP 1:

Prepare the materials. Precut the electrical tape for the lightbulbs, buzzer, and propeller. Poke 2 small holes in the cardboard.



STEP 2:

a. Separate the black and red wires. Using the wire strippers, line one end of the red wire up with the mark "18" on the wire strippers. Put the wire approximately 0.75 inch into the stripper, squeeze the handles, and pull the wire to remove the plastic sheath.



b. Twist the bare red wire around the brass fastener and put a paper clip through the end.



STEP 2 (cont'd):

c. Poke the fastener through the cardboard hole, flatten the brass fastener ends, and secure with tape. Repeat with the black wire but exclude the paper clip.

STEP 3:



a. Complete the first circuit by hooking the black wire through the light holder.



b. Fold the wire down to secure.



c. Attach the remaining end of the red wire on the paper clip to the red wire on the battery by twisting them together.



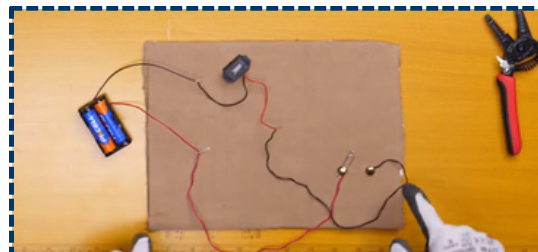
d. Attach the remaining end of the black wire on the battery to the light.



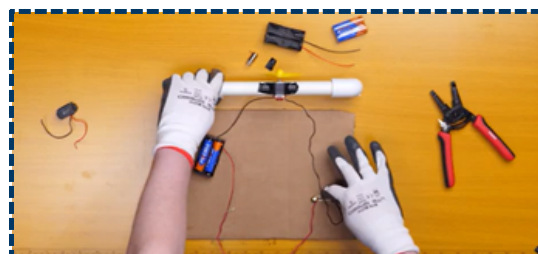
e. Flip the paper clip to turn on the light bulb. Disconnect.

STEP 4:

a. Make a circuit with the buzzer. Attach the buzzer to the cardboard with the electrical tape. Twist the wires together to make a circuit. Flip the paper clip to sound the buzzer.

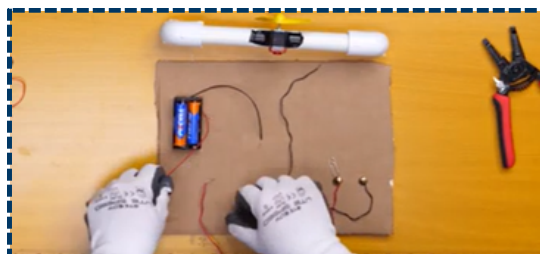


b. Make a circuit with the propeller. Tape the propeller to a PVC or PEX pipe to allow it to spin. Add into the circuit by hooking in the wires. Flip the paper clip to make your propeller spin.



STEP 5:

Disassemble the circuits when finished for the next person to use. Make sure to separate the battery leads when disconnecting.



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