FEZ-SE LUZ!
THERE WAS LIGHT!

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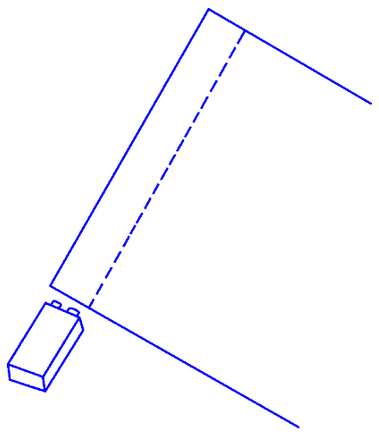
LIGHT SWITCH

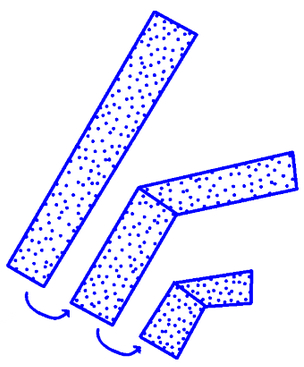
Needed materials

- A4 Paper sheet,
- Aluminium foil,
- Scissor and duct tape,
- Rectangular battery (9 V),
- Small LED.

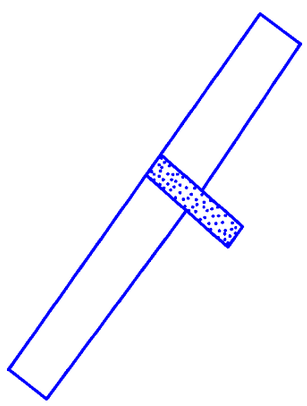
Instructions

1. 

1. Cut a strip of paper with scissors across the width of a paper sheet. That strip should have the same width as your battery.

2. 

2. Cut a strip of aluminium foil with the same size (as the paper strip) and fold it in half two times.

3. 

3. Place the folded strip of aluminium on top of the strip of paper. It has to be in the center and perpendicular to each other and half (of the alumninuim strip) is left out of the paper. Stick it together with a piece of duct tape.

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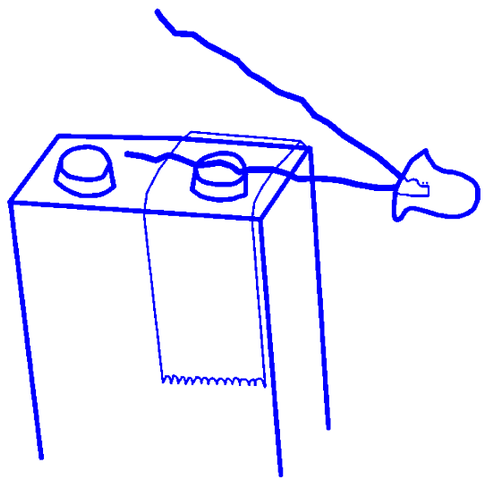
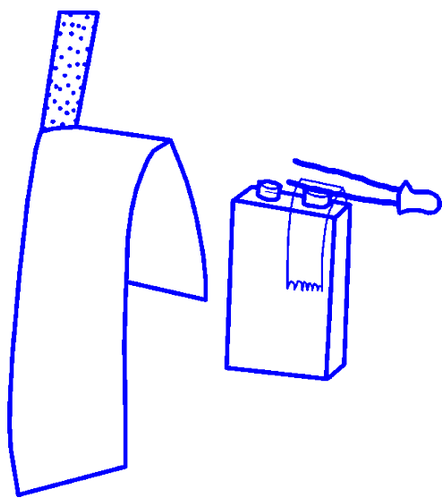
LIGHT SWITCH

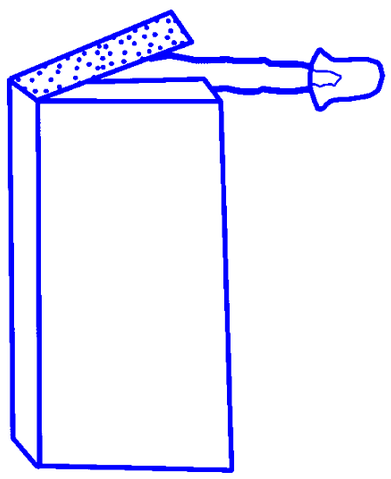
Instructions

4. 

4. Cut a piece of duct tape with scissors and use it to connect the smallest LED conector to the negative terminal of the battery.

5. 

5. Take your paper strip with the duct tape facing down and place the aluminium strip (that was left out of the paper) in a vertical position facing up. With the vertical aluminium strip on the opposite side of the LED wrap the paper strip around the baterry, leaving the LED conector, that isn’t glued to the battery, loose. After that, use a piece of duct tape to hold the loose end of the paper.

6. 

6. Fold the aluminium strip that was vertical so that it touches the LED conector that wasn’t glued down to the battery and watch the LED light up.

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LIGHT SWITCH

To obtain light or energy at home we need to create a closed electrical circuit, which consists basically in a “path” that connects the source of energy, can be a battery, to the lamp or other device creating an electrical current.

To create that path we need a material that conducts electricity, like metal. To light our lamp in a controlled way, we need something that can interrupt our circuit and our current whenever we want, which is called a switch.

When we turn the switch on (light is on) we’ve a closed circuit, and when we turn off the switch (light is out) we’ve an open circuit.

Now you understand that...

1. To turn on the LED light you’ve created a small electrical circuit made of conductive materials.
2. The folded aluminium foil works as the switch.
3. When you turn the light on, you’re closing the circuit and allowing current.
4. When you turn the light off, you’re opening the circuit and interrupting current.
5. Aluminium foil is a good conductor.
6. Air and paper are bad conductors.

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