

**Safety:**

safety glasses



**Instruments:**

- an empty metal cup from the bottom of a tea light
- a graphite rod
- an electrical current meter
- an electric motor
- a cable with alligator clips on the ends
- filter paper
- a container
- a spoon

**Chemicals:**

- ammonium chloride salt (H: 302-319; P: 305+351+338)
- manganese (IV) oxide (H: 332-302; P: 221)
- water

**Experiment:**

- Stir two spoonfuls of ammonium chloride salt, one spoonful of manganese (IV) oxide and a small amount of water until a thick paste results.
- Place a moist piece of filter paper into an empty metal cup removed from the bottom of a tea light.
- Fill the cup with the thick paste and push the graphite rod into the mix.
- Create a circuit by connecting the graphite rod with the metal edge of the cup. Use two wires connected with an electric motor. What happens?

**Advice for the teacher:**

The students should learn that dry batteries can be simply and easily produced in order to run small motors, etc. They should also learn the basics of building a normal dry battery.