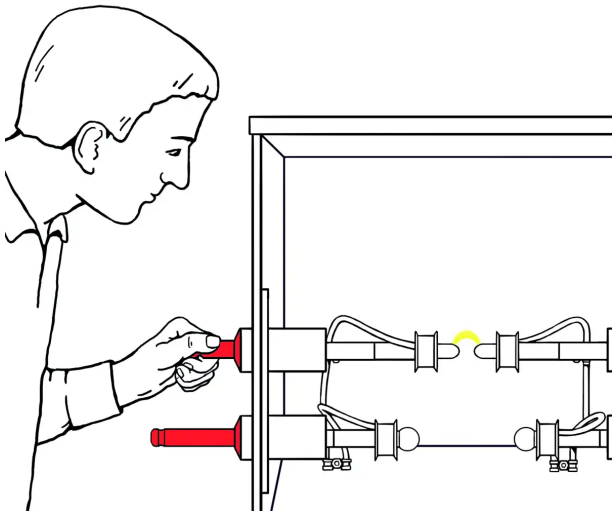
Electric Flame

Can you get an arc to "jump" up from the bottom pair to the top pair?



Push the red button to turn on the voltage.

Use the white knobs on the sides of the exhibit to push a set of electrodes together until you get an arc.

See how close you can get the electrodes without starting an arc. Is it the same for both sets?

When you press the button, a voltage is applied to the electrodes. If the gap is small enough, the electric field is strong enough to tear electrons out of atoms in the air. When enough atoms have been ionised like this, an electric current can flow between the electrodes. The electrical energy is so strong that the air glows.

If you pull the electrodes apart, the electric field gets weaker, and at some point it is no longer strong enough for the current to flow.