Purpose: Demonstrates something about electricity.

This is one of those demos that are very popular with the students. Put a condemned pickle in the electric chair, with the wires inserted at either end. When plugged in, the pickle smokes and glows yellow.

Officially, this is an example of a non-ohmic device.

The demo raises a lot of questions which the class loves to think about, and perhaps more experimentation would be fun:

How do pickles behave in series and parallel?

Why does it glow yellow? (The glow is due to Na from the pickling brine.)

Why does it glow only at one end? Is it always the big end? ..... There is a surprising amount of literature on the web, search on ‘Electric Pickle.’
Note: Many thanks to Brandon White for making the little electric chair.

Extra Equipment: None? (At the time of writing there is a jar of pickles stored with the chair. Most of the big ones are gone and the only ones left are like that in the photo. If you want a big pickle, bring your own.)

Location: Shelf E4