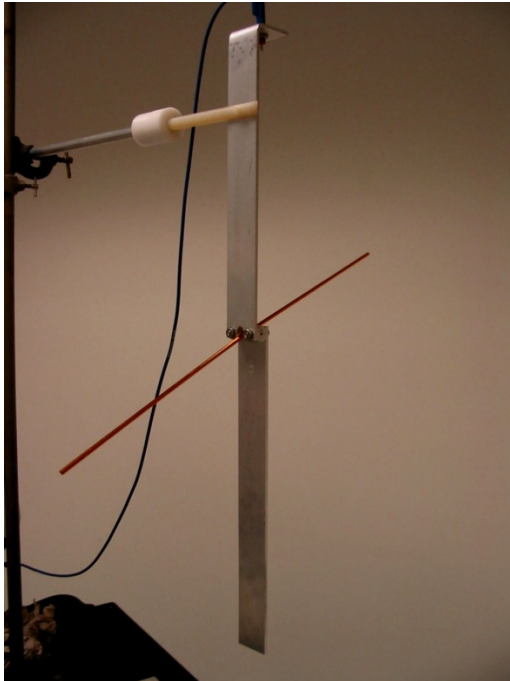


## Jumbo Electrostatics



**Electrostatic Wand**



**Jumbo Electrostatic and 'Pith' Ball Setup**  
The wire leads to an insulated, conducting sphere.

**Purpose:** Demonstrate the electrostatics to a large audience.

This is about the most trouble free electrostatics demo that I have seen. It even seems to work on humid days. The idea is to make the items big so they can be seen by everyone in the lecture room.

You can make either charge by rubbing a brown paper towel (from bathroom dispensers) on either the plexi(-) or gray-PVC(+) end of the electrostatic wand.

The Jumbo electroscope works really well, and with it you can show many aspects of attraction and repulsion – once the idea of induction is understood. I like to hook the little conducting sphere up to it, then using the wand you can add and subtract charge from the system and see the effects on the scope.

Finally, I have included a Jumbo ‘pith’ ball setup for those who like such things. You can adjust their spacing since they are hung from slip rings.

**Note:** All electrostatic demos are plagued by the fact that induction effects often overshadow true Coulomb attraction/repulsion of charges. It is probably best to come clean with the class about this, and begin with attraction-by-induction: A great demo here is to place an empty pop can on its side and show that it rolls toward the charged wand (either end).

**Extra Equipment:** Soda Pop Can

**Location:** Shelf E1

**Thanks to PIRA for the electroscope’s Kapton vane. Don’t break it!!!**