

http://www.geocities.com/hallohall180/LABTRANSFORMER.html

## LAB TRANSFORMER



This is the faux transformer that I made for my lab set up in 2003. I had an old water heater that I was going to take to the dump but never got around to it. Then it hit me one day that it looked like the transformers on telephone poles. So the idea was born......

IF YOU HAVE NEVER HANDLED HIGH VOLTAGE
BEFORE DO NOT MAKE THIS A WORKING MODEL!
NEON TRANSFORMER VOLTAGE CAN KILL YOU!



The first thing I did was to paint the outside of the water heater silver. I did 2 coats of paint on this but only used one can of paint as silver goes a long way. Then I cut a piece of 3/4" plywood for the top and cut a hole out of the middle for the flue pipe hole.



Then I attached a piece of 2 x 4 over this hole this is the mounting block for the Jacob's ladder wires. I used 8 gage wire for this about 30" long that are screwed into connector blocks on the 2 x 4 block. I painted this part red and made a Plexiglas box to fit over the Jacob's ladder. To weld the sides of this together I used my soldering iron and melted the pieces together with butt joints. Then this was screwed to the 2 x 4 block on top of the plywood.

I did it this way so I could remove it to bring it into the house at night so it would not get wet, 12,000 volts and water don't mix (found this out the hard way). To mount it to the water heater I just put three sheet metal screws through the plywood and into the water heater top.



To spruce up the front of the transformer I mounted an old battery charger to it, some spare knobs I had and some extra wire and an old vacuum hose I had and printed out the "HIGH VOLTAGE" sign on the computer (copy the one from this page) and laminated it then taped it to the front. To run the Jacob's ladder I have a 12,000 volt neon transformer I got on eBay (if you bid on these early in the year they are a lot cheaper than around Halloween) that is switched on and off from a knife switch board I made so it doesn't have to run all the time. The whole thing sits in the back of the lab away from the patrons so there is no danger of them coming into contact with any of the wires or the Jacob's ladder. For extra

safety I also run a wire to a piece of rebar rod pounded into the ground and up to water heater with a screw so it will be grounded from any stray current that could come off of the Jacob's ladder.

## NOUT AGE