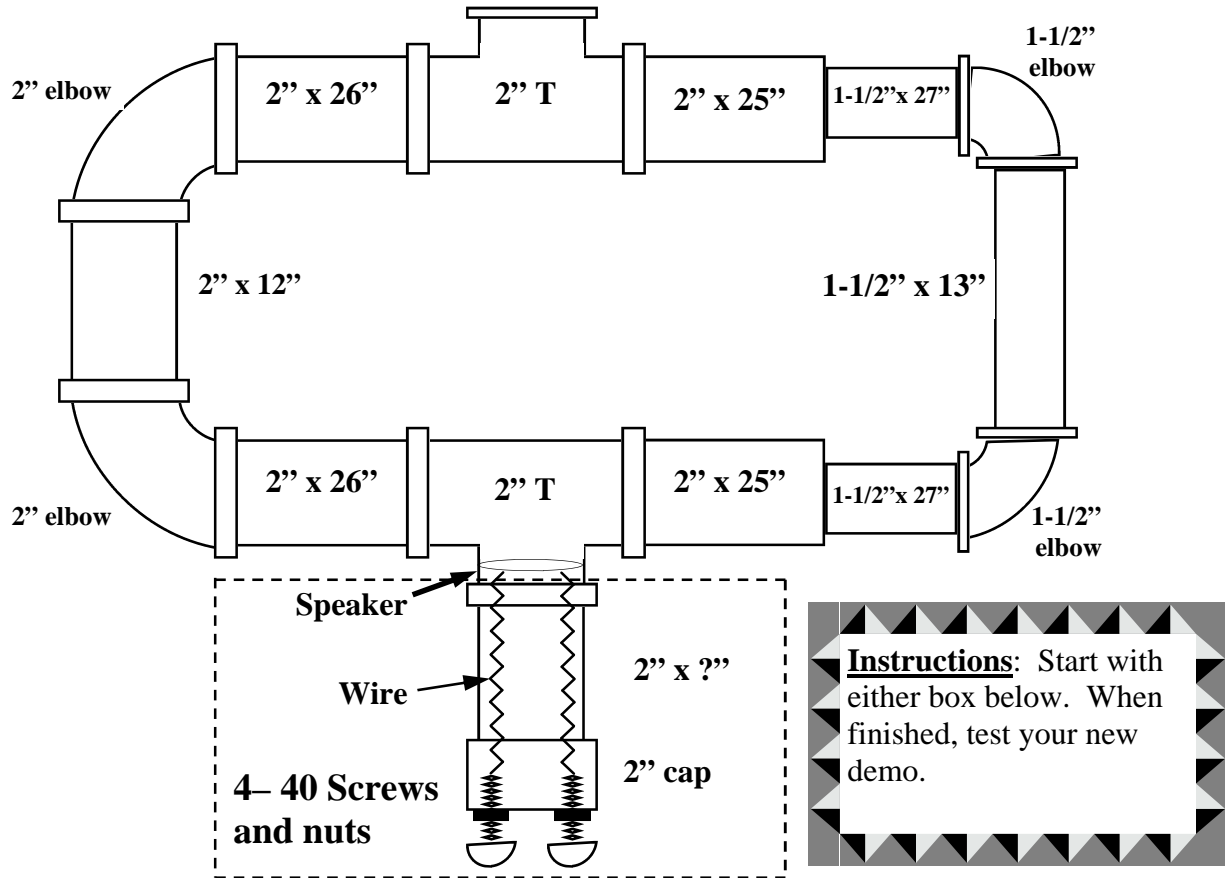


Syracuse University Saturday Morning High School Physics Teacher Workshop

Make and Take — Quincke's Interference Tube

(adapted from AAPT Make & Take)



1. Except for the section in the dashed rectangle, assemble the PVC according to the plan above. Clean the ends of the pipe before cementing. Think about how you might display this in your classroom. Which way do you want the middle sections of the Ts pointing? This is where the sound leaves the tube and the audio connection for the speaker.

1. Drill and tap 2 holes in the end of the 2" cap. Thread nuts onto screws and insert screws about 1/2 way.
2. Cut wire and strip ends. Make sure the wire is long enough to reach through the 2" x ? section of tube with extra slack.
3. Wrap wire around end of screw and solder the wire to the screw. Remember to let the screw and wire melt the solder, not the solder tip. Use an alligator clip as a heat sink.
4. Press fit the 2" x ? tube onto the cap, pulling the wires through the tube. **Do not use cement on this step.**
5. Solder other end of wires to the speaker.
6. Insert speaker into 2" T, then press in the cap and tube assembly to secure speaker. **Do not cement this tube.**