

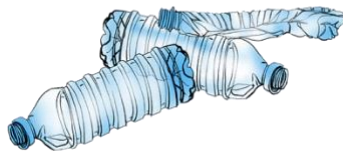
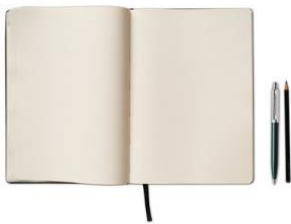
Be a Noise Control Engineer - Quiet that Phone!

Pollution. We often hear about the different kinds, from air and water to light pollution. But have you ever heard of sound pollution? Sound pollution can have harmful effects on both our health and the environment. It is the job of Noise Control Engineers to design and test noise insulation technologies and sound-adsorbent materials to help limit the harmful impacts of noise and sound pollution. Try your own hand at being a Noise Control Engineer and quiet that phone!



Supplies:

- Smart Phone.
- Box or container large enough to hold phone and surrounding materials.
- Materials- A variety of should be gathered. Start with clothes, plastic bags, bubble wrap, blankets, rain jackets, and anything else that comes to mind.
- Song to play during testing.
- Pen and paper for recording.



Instructions:

1. Once you have gathered a variety of materials it is time to begin! Start by picking only one kind of material such as t-shirts.
2. Begin playing that rocking song you chose.
3. Next, surround the phone with the t-shirts and place it in your container. Try to have the phone be positioned in the very center of the box with equal amount of t-shirt material on all sides. If the phone is touching one side of the container the whole experiment is off.
4. Close the lid and listen. Did the music get quieter or not? Go ahead and record with your pen and paper the material you used (t-shirts) and how successful it was in quieting the phone on a scale of 1-10. 10 being you can't hear the music at all and 1 being no change in sound level.
5. Chose another material and repeat steps 1-4.
6. Repeat step 5.
7. Repeat step 5 again.
8. Now instead of using only one kind of material switch it up and try combining the materials together. Perhaps both t-shirts and plastic bags or bubble wrap and rain jackets. The possibilities are endless! Just don't forget to record your results.
9. Once you are finished testing each materials and combinations of materials got back and check out your recordings. Which material did the best in canceling out noise? Why do you think that is? What other materials do you think might work better? These are questions Noise Control Engineers ask themselves.

Congrats one being a Noise Control Engineer!