

Switched Ears

Materials:

Sound cancelation headphones- Wal-Mart, Harbor freight

2 Whirly's Wal-mart or dollar tree

2 funnels same size (larger looks more fun and catches more sounds)

Duck tape

Hot glue gun and sticks

Drill with paddle bit

Instructions:

1. Remove the foam from inside the headphones.
2. Mark the outside center of the headphones and cut a hole in each side with the drill and paddle bit.
3. Replace the foam back inside the headphones.
4. Hot glue the whirly end to each side of the headphones and then duck tape over it for extra support.
5. Tape the funnels to open end of the whirly.
6. Carefully, cross the whirly's and securely tape.
7. Done!



Switched Ears

To do and notice:

Place the Switched Ears on your head covering your ears. Listen to the sounds around you.

Turn your head in different directions. Move your head up and down. How does the sound you hear change?

What's odd about the sounds you hear?

Walk around the room.

What's going on?

Take off the Switched Ears. Examine the path that the sound takes to your ears.

The sounds or vibrations that Switched Ears detects are focused into the funnel and then travel down the tubes to your ears. We have switched the ears, so that the right ear is detecting sounds to the left of you and the left ear is detecting sounds to the right of you.

Your ears are designed to help you detect sounds, but also locate the source of the sound. This device also changes which ear receives the first sound.

LIGO Connection:

LIGO's goals are to detect gravitational waves from all directions (like an antenna –or your ears.) There are multiple detectors to help locate the source of gravitational waves from our Universe.