



## Colorado Science and Engineering Fair

## 2025 Individual Project Abstract Form

**Please print 2 copies of the completed form. Sign both copies, keep 1 for your notebook and submit 1 copy to your Regional Fair Director with your other paperwork.**

Title of Project: Don't Interfere With Snow Gear

Finalist's Name: Elly Entz

School and City: Sargent Middle School

Sponsor's Name: Terri Paulson

Category: Physics & Astronomy

Division: Junior (grades 6 - 8)

Abstract (250 words or less):

My project was about avalanche transceiver interference, in which I tested different items to see if they interfered with two different types of transceivers. I found that the transceivers were most interfered with by the earbuds with and without music, the radio with no transmission, and the gum wrapper. We tested for ghost signals, interference with receiving signals, and different speeds and distances the two transceivers picked up signals from .3 and .9 meters of snow. During this project, I got the chance to get to work hands-on with all of the avalanche safety gear. I also got to learn more about the different types of avalanches and their causes. Like monkey ears, that was one of my favorite things to learn during this project. I found learning about how the transceiver has little antennas in them, and depending on the way they are placed when buried, determines how your path to the transceiver. I'm very glad I did this project and think that it has benefitted my own knowledge on the subject and I am very glad to have had the chance to get to work on it. It helped so much to have an adult who also had a passion for the subject and was willing to help me with this project.

*I hereby certify that the above statements are correct and the information provided in the Abstract is the result of one year's research. I also attest that the above properly reflects my own work.*

Finalist's Signature:

Date:

In addition, all students must complete the ISEF Student Checklist (1A), Research Plan, Approval Form (1B), and Checklist for Adult Sponsor (1), and any other ISEF forms required for this type of project. See the International Rules and Guidelines for form requirements. Return COPIES of all of these forms to your Regional Fair Director with you Finalist Verification/Permission Form. **A signed copy of this form must be included in your notebook.**