



# Colorado Science and Engineering Fair

## 2024 Team 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: Audio Recognition and Speech in python

Team Leader's Name: Max Montoya

Team Member 1: Max Montoya

Team Member 2: Evan Perkins

School and City: Ignacio High School, Ignacio

Sponsor's Name: Crystal Redman

Category: Engineering (ENGR)

Division: Senior (9th - 12th grades)

Abstract (250 words or less):

As the storage capacity and connectivity of devices improve, speech recognition and control of various tools we use in our daily lives has become more prevalent. Speech recognition allows users to control their electronic devices remotely more accurately than ever before. In this project, we will investigate the SpeechRecognition package in Python to develop code. There are several publicly available open source projects that use the Python SpeechRecognition library and can be used to explore this functionality. Secondly, we wanted to learn about Raspberry Pi and investigate whether we could install our code on a more mobile solution. We find it fascinating that something as complex as voice recognition can be achieved by a tiny Raspberry Pi computer.

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

Team Leader's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Team Member 1's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Team Member 2'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 your Finalist Verification/Permission Form. A signed copy of this form must be included in your notebook.