



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: Future Development of a Computer Chip: Year 1 - Coding

Finalist's Name: Maddox King

School and City: Yuma High School, Yuma

Sponsor's Name: Amy K. Melby

Category: Engineering

Division: Senior (grades 9 - 12)

Abstract (250 words or less):

Modern computer chip technology is not progressing according to Moore's Law. The researcher sought to fix this issue by learning how computer chips are made and how improvements to them can be made. Many processes are key to making a computer chip including photolithography, etching circuits into a silicon wafer in layers, and programming as the main computer processors need to be programmed to execute commands and equations. The researcher learned a computer language called Python. To test programming knowledge, a mechanical glove that allows a player to control actions in virtual reality was built. The glove utilized a similar programming language and the code was modified to work with the system and the custom way the glove was built. Building this glove helped the researcher understand the principles of programming and the logistics of physical parts needed to process information given by user input and outputting processed information.

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.**