

## WELCOME TO THE 32<sup>nd</sup> ANNUAL AWARDS CEREMONY



### First Place

Team #47 Developing a Control Algorithm and Simulation for Thrust Vector Controlled Rockets

School Los Alamos High Team Members Daniel Kim, Andres Iturregui





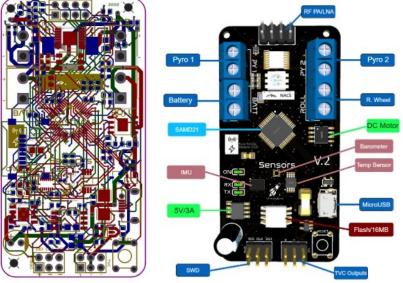


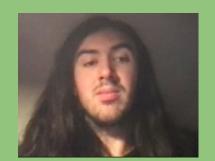
Figure 5. The flight computer in the design phase



#### **WONDERFUL ACHIEVEMENT!**

#### Second Place

- Team #15 EL HAVEN (The Hearing, Exploring and Visualizing of Nubes)
- SchoolNew Mexico School for the ArtsTeam MembersDjango Beaudoin, Elisea Jackson,<br/>Madelyn Kingston, Lexington Smith
- Teacher/Sponsor Acacia McCombs











#### Third Place

- Team #34 Machine Learning DNA Methylation & Alzheimer's Disease
- School

- La Cueva High
- MembersAditya Koushik, Abitpal GyawaliTeacher/SponsorYolanda Lozano





#### **CONGRATULATIONS!**



## New School to the Challenge This Year







Team #12 Measuring, Analyzing, Predicting and Improving the Quality of Air

School Capital High Members Joshua Tamarra, Zachariah Burch, Britny Marquez, Isel Aragon Teacher/Sponsor Barbara Teterycz

Team #15 EL HEAVN (The Hearing, Exploring and Visualizing of Nubes)

School Members New Mexico School for the Arts Madelyn Kingston, Django Beaudoin, Lexington Smith, Elisea Jackson

Teacher/Sponsor

Acacia McCombs



#### Team #21 A Ray of Hope

- School Los Alamos High
- Member Andrew Morgan
- Teacher/Sponsor Nathaniel Morgan

#### Team #24 Effects of Combinations of Halogen Additions to Molecules on Absorption/Emission Wavelengths.

- School
- Member
- Teacher/Sponsor

- La Cueva High
- Melody Yeh
  - **Creighton Edington**



#### Team #27 Designing Proteins with Quantum and Neuromorphic Computing

- School Los Alamos High
- Member Robert Strauss
- Sponsor Vikram Mulligan, Garrett Kenyon

#### Team #30 Classifying Mushroom Edibility

- School La Cueva High
- Member Yana Outkin
- Teacher/Sponsor Yolanda Lozano



Team #34 Machine Learning - DNA Methylation and Alzheimer's Disease

- School La Cueva High
- Members Aditya Koushik, Abitpal Gyawali
- Teacher/Sponsor Yolanda Lozano

Team #47 Developing a Control Algorithm and Simulation for Thrust-Vector-Controlled Rockets

School

Los Alamos High

Members

Daniel Kim, Andres Iturregui



## Innovative Data Science Award

La Cueva High School

#### Team #30 Classifying Mushroom Edibility

School

Team Member

Yana Outkin

Teacher/Mentor

Yolanda Lozano

# CNM Ingenuity, Inc.



## Innovative Machine Learning Award

## Team #34 Machine Learning - DNA and Methylation & Alzheimer's Disease

School

La Cueva High School

Members

Aditya Koushik, Abitpal Gyawali

Teacher/Sponsor

Yolanda Lozano



## Agent-based Model using NetLogo Award

#### Team #56 Understanding Sweetness

School St. Thomas Aquinas

Team Member

Julianna Matthews

Teacher/Sponsor

**Eric Vigil** 





## Award for Agent-based Modeling Using StarLogo-Nova Truman Middle School

# Team #28Relationship Between Deforestation and Climate ChangeTeam MembersSebastina Puentes, Yahir Prieto,<br/>Camila Hernandez Delgado

#### Team #29 Amazon Deforestation

School

Team MembersBriana Anaya, Sade Garcia, Yaritzel Castro

Teacher/Sponsor Natali Barreto Baca





## Technical Writing Award



#### Team #15 El HEAVN (The Hearing, Exploring and Visualizing of Nubes)

School Team Members

Teacher/Sponsor

New Mexico School for the Arts Django Beaudoin, Elisea Jackson, Madelyn Kingston, Lexington Smith

Acacia McCombs



## Head Judges

#### Michael Trahan

#### **Richard Barrett**



#### Kaley Woelfel



## Recognition of Expo Judges

Ed Angel **Richard Barrett** Jon Brown Ranjana Damle Mohit Dubey Daniel Fuka Susan Gibbs Clint Hubbard Cole Kendrick

Nicholas Kutac Peter Lamborn Max Lazo Joan Lucas Sam McGuinn Monique Morin James Overfelt Veena Parboteeah

Dave Price Dorian Sims David Torres **Rachel Washington** James Wernicke Kaley Woelfel Phil Wolfram Geoff Valdez



### Finalists Judges

Mike Davis

Sharon Deland

Joan Goldsworthy Appel

Stephen Guerin

David Janecky

Amy Knowles

Tom Robey

Michael Trahan





## Shout Out to Alan Daugherty, Mary Sagartz, Harry Henderson

#### **Code Break Team**









## **Community Impact Award**



#### Team #56 Understanding Sweetness

School

Team Member

Sponsor

St. Thomas Aquinas

**Julianna Matthews** 

**Eric Vigil** 



## High Performance Computing Award

Team #27 Designing Proteins with Quantum Neuromorphic Computing

Los Alamos High

Team Member

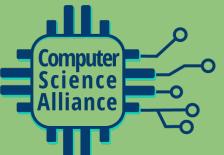
School

**Robert Strauss** 





## Middle School Award



Truman Middle School

Team #28 Relationship Between Deforestation and Climate Change

Team Members Sebastina Puentes, Yahir Prieto, Camila Hernandez Delgado

Team #29 Amazon Deforestation

School

Team Members Briana Anaya, Sade Garcia, Yaritzel Castro

Teacher/Sponsor Natali Barreto Baca



#### STEAM Award

#### Team #53 Art with Tech

School

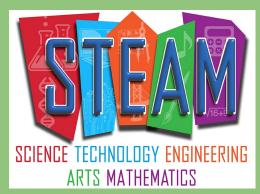
Team Member

Sponsor

La Cueva High

Victoria Outkin

Yolanda Lozano







## Teacher Appreciation Award

#### Capital High Teacher: Barbara Teterycz







## Teacher Appreciation Award

#### Jackson Mid Teacher: Sharee Lunsford







## **Teacher Appreciation Award**

#### Harrison Mid and Justice Code Teachers:

#### Caia Brown, Becky Campbell and Ryan Palmer











## Teacher Appreciation Award

#### Truman Middle School Recognizes Creighton Edington



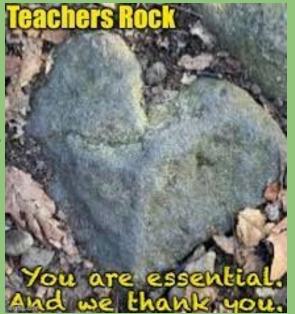






### **Teacher Sponsors**

All our teachers & sponsors are awesome. This year we are able to give them a "Thank You Very Much!" surprise stipend.



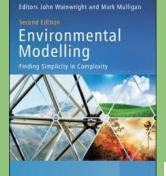


## Environmental Modeling Award

Team #4 Optimizing the Geographic Location of Renewable Energy Sources

SchoolCapital High, Santa Fe High, Santa Fe PrepTeam MembersLucas Blakeslee, Ian Olson, Valentin Ornelas,<br/>Shrey Poshiya

Sponsors Irina Cislaru, Jocelyn Comstock



WILEY-BLACKWELL



## NMTIE Teamwork Award

NMTIE - Furthering Education Through Technology

#### Team #23 Maze Project

School Justice Code/International/Harrison

Team Members

Mekhi Bradford, Kingsley Walker, Wellbeing Ogunsanwo, Hero Okhaifoh, Nkemjika Aluka, Kamsi Anyanwu

Sponsor

Caia Brown, Rebecca Campbell





## Creativity & Innovation Award Sponsored by Sandia National Laboratories

#### Team #45 Entropy in Chess



School Team Members Santa Fe High Armando Martinez-Brito, Aengus McGuinness, William Barral, Roman Nappi

Sponsor

**Brian Smith** 



## Equity and Access Award

#### Team #10 Datacasting, An Opportunity in Education Equity

School Team Members Taos High School Athanasios Bertin, Gracie Goler,

Carlos Miller, Lola Shropshire, Lakai Tucker

Sponsor

Tracy Galligan





## Logo for Next Year 2022 - 23

#### And the Logo is

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## Logo for Next Year 2022 - 23

#### CREATING A LOGO FOR NEXT YEAR IS WORTH \$200 TO YOU.

#### WE'LL LOOK FOR SUBMISSIONS UNTIL JUNE 1, 2022.

Send your submission to logo@supercomputingchallenge.org





## A Tribute to Shaun Cooper

## Retired Master of Ceremonies, teacher sponsor, mentor, board of directors, and judge.

## Challenge Advocate from 1991 - 2021



Message from Marisol Gamboa, Challenge Alum



## Shaun Cooper Participation Award

#### **Kyreen White**

Manzano High School

7 years of participation

Perseverance!





## New Mexico Network for Women in Science and Engineering

#### Team #16 A-maz-ing Algorithms

School Cottonwood Classical/Del Norte High

Team Members

Sponsor

Ayvree Urrea, Kiara Onomoto, Violet Kelly

Karen Glennon

Presented by Cheri Burch





## Human Computer Interaction



Team #47 Developing a Control Algorithm and Simulation for Thrust-**Vector-Controlled Rockets** 

School Los Alamos High

Team Members

Daniel Kim, Andres Iturregui



## Expo Judges' Special Award Waste Not, Want Not

Team #13 Management of Waste and Reduction of Hydrocarbon Emissions

School Team Members

Taos High School Flynn Basehart, Brian Hoang, Izaiah Gonzales, Chris Rivera

Teacher/Sponsor

**Tracy Galligan** 



## Expo Judges' Special Award Distribution of Power

# Team #3 How Climate Change Affects Power Outage and the Distribution of Power

Schools Team Members Manzano High & Eldorado High Nancy Avila Do, Candis Canaday, Gwenevere Caouette, Kyreen White

Sponsor

Sharee Lunsford/Karen Glennon



## Finalist Judges' Special Award Exploration Award

# Team #12 Measuring, Analyzing, Prediction and Improving the Quality of Air

School Team Members

Sponsor

Capital High Isel Aragon, Zachariah Burch, Britny Marquez, Joshua Tamarra

**Barbara Teterycz** 



Finalist Judges' Special Award Spectroscopic Modeling

#### Team #24 Effects of Combinations of Halogen Additions to Molecules on Absorption/Emission Wavelengths

School La Cueva High

Team Members

Sponsor

Melody Yeh

**Creighton Edington** 



## Scholarship Recipients



#### Scholarship Committee

#### Hope Cahill, Creighton Edington

#### and Dana Roberson





## **Scholarship Recipients**

Nancy Avila **Candis Canaday Gwenevere Caouette** Juan de la Riva McLight Emma-Asonye **Madelyn Kingston Mariah Rivera** Jack Sparrow Joshua Tamarra **Angel Velasquez Kyreen White** 

#### <u>High School</u>

**APS Eldorado APS Manzano APS Manzano Capital High** Justice Code NM School for the Arts **Capital High** Monte del Sol **Capital High** Monte del Sol **APS Manzano** 

#### <u>University</u>

**New Mexico Tech** New Mexico Tech **New Mexico Tech New Mexico Tech** CNM Carleton College **University of Denver** UNM CNM UNM UNM



#### Scholarship Donors





#### **Primary Partners**

- Los Alamos National Laboratory
- New Mexico Consortium
- Triad National Security, LLC

#### **Platinum Partners**

• Sandia National Laboratories

#### **Gold Partners**

- Cray, a Hewlett Packard Enterprise company
- Westwind



#### **Silver Partners**

- Gulfstream Group and bigbyte.cc
- PNM

#### **Bronze Partners**

- Air Force Research Lab, Kirtland
- ABQ-IT, a division of Albuquerque Computer and Electronics Recycling Center
- Descartes Labs
- Intel
- Los Alamos National Laboratory Foundation
- New Mexico Technology In Education (NMTIE)
- Simtable/Redfish Group



#### **Educational Partners**

- The Center for Connected Learning (CCL) and Computer-Based Modeling/NetLogo
- CNM Ingenuity, Inc
- Eastern New Mexico University
- MIT Starlogo-Nova
- New Mexico EPSCoR, Experimental Program to Stimulate Competitive Research
- New Mexico Highlands University



#### **More Educational Partners**

- New Mexico Institute of Mining and Technology
- New Mexico Public Education Department
- New Mexico State University
- Northern New Mexico College
- San Juan College
- Santa Fe Community College
- University of New México
- UNM Center for Advanced Research Computing



#### Friends of the Challenge

- Computer Science Alliance, Paige Prescott
- Dr. Shaun Cooper, NMSU
- Matthew Curry, Sandia National Labs
- Daniel and Mél Fuka
- INTERA Geoscience and Engineering Solutions
- NM Network for Women in Science and Engineering
- Fred J Voss
- Windspirit Therapeutic Massage



#### We'll see you next year!!! It will be our 33rd year!

#### **Congratulations Seniors!**

We look forward to your coming back to be an alumni supporter!

