

# The 2022 Hawaii State Science & Engineering Fair Special Awards

## 'Aina Haina Community Association

*\$100 Cash Award – Eileen Zhang, Kawananakoa Middle School*

"Seawalls and Their Effectiveness Against Tsunami Waves" (Project ID: 22-ENEV-5379)

## American Association of Physics Teachers

*Hawaii AAPT/Paul Hewitt Physics Award – Jennifer Williams, Roosevelt High School*

(For Project ID: 22-PHYS-0030)

## American Chemical Society, Hawaii Chapter

### SR Division

*1st Exemplary Chemistry Project, \$25 Cash Award/Certificate – Taarini Godbole, Waiakea High School*

"Analyzing the Efficiency of CRISPR/Cas9-mediated Mutagenesis in the white pupae (wp) gene of the Melon Fly, *Zeugodacus cucurbitae* (Diptera: Tephritidae)" (Project ID: 22-CELL-0193)

*2nd Exemplary Chemistry Project, \$25 Cash Award to Each Student/Certificate - Princess Lanzaderas & Nhan Dang Waipahu High School*

"Analyzing the Bacterial Growth of E.Coli with the Presence of Antibiotic Resistance Under the Exposure of UVC Light" (Project ID: 22-MCRO-0210)

*3rd Exemplary Chemistry Project, \$25 Cash Award/Certificate - Logan Lau, Kamehameha Schools Kapalama*

"Testing Fabric and Mask Particle Filtration Efficacy Against Durability and BPM (Year 2)" (Project ID: 22-BMED-0066)

*4th Exemplary Chemistry Project, \$25 Cash Award/Certificate – Rachel Tao, Waiakea High School*

"Understanding the Molecular Mechanisms Underlying the Anticancer Pathway of a Traditional Hawaiian Herb" (Project ID: 22-TMED-0011)

### Best in JR Division

*1st Best Chemistry Project, \$100 each Cash Award/Certificate - Melokia Johnson, Sunset Beach Elementary School*

"Goodbye Green" (Project ID: 22-CHEM-5857)

*2nd Best Chemistry Project, \$50 Cash Award to Each Student /Certificate - Brielle Rola, Chloe Liu, & Mio Sutherland, Kaimuki Middle School*

"The Effects of Increased Atmospheric CO2 on Medicinal Plants" (Project ID: 22-BCHM-5014)

**3rd Best Chemistry Project, \$25 each Cash Award/Certificate - Kristin Ichimasa, Hilo Intermediate School**  
"The Effect of Different Ph Levels on the Spherification Process" (Project ID: 22-CHEM-5815)

**Best in SR Division:**

**1st Best Chemistry Project, \$100 Cash Award/Certificate – Alanna Sun, Waiakea High School**  
"Evaluation of natural products in Mamaki tea using untargeted metabolomics" (Project ID: 22-CHEM-0164)

**2nd Best Chemistry Project, \$50 Cash Award/Certificate – Maya Oishi, Hilo High School**  
"Examining the Effectiveness of Organic Curcuma caesia and Curcuma longa (Turmeric) Powder on Drug Resistant Neuroblastoma Cancer Cells" (Project ID: 22-BCHM-0063)

**3rd Best Chemistry Project, \$25 Cash Award/Certificate - Yumi Mizobuchi, Iolani School**  
"A Sustainable Alternative to Textile Dyes Synthesizing Nanoparticles to Create Structural Color" (Project ID 22-CHEM-0308)

**Teacher Award in Chemistry, \$100 Cash Award – Whitney Aragaki, Waiakea High School** (For Project ID: 22-CHEM-0164)

## American Public Works – Hawaii Chapter

**JR Division**

**\$50 Cash Award - Alicia Malilay & Shainna Opriasa, Dole Middle School**  
"The Efficacy of Fruit Peel Tea Fertilizers on the Growth of Tomato Plant" (Project ID: 22-PLNT-5779)

**\$50 Cash Award - Cassidy Pong, Pearl Harbor Christian Elementary School**  
"Grocery Store Bacteria: The Dirtiest Surface" (Project ID: 22-MCRO-5888)

**\$50 Cash Award - Nateila Rivera & Milinda Garcia, Konawaena Middle School**  
"Do Masks Really Keep Us Safe?" (Project ID: 22-BMED-5921)

**\$50 Cash Award - Riley Hayashi & Jethro Bumanglag, Calvary Chapel Christian School**  
"Smoothie Bomb" (Project ID: 22-CHEM-5046)

**SR Division**

**\$50 Cash Award - Giulia Porter, King Kekaulike High School**  
"Finding the Temperature of Exoplanets" (Project ID: 22-PHYS-0195)

**\$50 Cash Award - Lawrence Lilly, Moanalua High School**  
"Redesigning TheBus Routes in Urban Honolulu" (Project ID: 22-SOFT-0311)

**\$50 Cash Award - Maddison Hubbard & Savannah Hubbard, Kauai High School**  
"Earth's Eccentricity Impact on Coccolithophores" (Project ID: 22-EAEV-0348)

**\$50 Cash Award - Jamir Ace Raquino & Xerhine Angela Esperenza & Francine Joy Jimenez, Farrington High School**  
"Changes in the Water Quality of the Kalihi Stream: 1970s to Now" (Project ID: 22-EAEV-0424)

## American Water Works Association – Hawaii Chapter

***\$250 Cash Award, 1st place winner - Lauren Suzuki, Pearl City High School***

“Salinity Valve: Fresh Water Conservation” (Project ID: 22-ENEV-0033)

***\$250 Cash Award, 1st place winner – Angelo Agarano & Mariah Iris Ramo, Waipahu High School***

“Solar-Powered Aquaponics” (Project ID: 22-EGSD-0216)

***\$200 Cash Award, 2nd place winner – Estefany Mae Bayudan & Eva Mendoza, Waipahu High School***

“Monitoring Air Quality through the Creation of a Sustainable and Inexpensive Air Filtration System” (Project ID: 22-EAEV-0150)

***\$200 Cash Award, 2nd place winner – Landon Choy, Kamehameha Schools Kapālama***

“Harnessing the Energy in Waves to Generate Electricity” (Project ID: 22-EGSD-0062)

## Associated Chinese University of Women

### JR Division

***\$200 Cash Award, 1st place winner – Sophia Lafferty, Our Lady of Good Counsel School***

“The Dirt Snatcher” (Project ID: 22-BMED-5095)

***\$200 Cash Award, 2nd place winner – Layla Semder, Moanalua Middle School***

“Algae You Later CO<sub>2</sub>” (Project ID: 22-EAEV-5919)

### SR Division

***\$200 Cash Award, 1st place winner - Lauren Suzuki, Pearl City High School***

“Salinity Valve: Fresh Water Conservation” (Project ID: 22-ENEV-0033)

***\$200 Cash Award, 2nd place winner – Jingjing Wang, Iolani School***

“LuxI/LuxR-Type Quorum Sensing System in K61, Dickeya species novel: Growth and Acyl Homoserine Lactone Production in MgSO<sub>4</sub>-Rich Brine” (Project ID: 22-BCHM-0301)

## CTAHR Alumni Association Award for Excellence in Research

***\$300 Cash Award, Certificate, and Placard – Kellen Apuna, Kamehameha Schools Kapālama***

“Population Status & Monitoring of the Red-crowned Parrot (*Amazona viridgenalis*) on O‘ahu, Hawai‘i” (Project ID: 22-ANIM-007)

## Dr. Austin Lowrey III Science Grant

***\$2,000 Cash Award and Letter – Melanie Reym, Maui High School***

“Finding the Doppler Velocity of an Exoplanet” (Project ID: 22-PHYS-0259)

## Friends of Hanauma Bay

### JR Division

***\$100 Cash Award, Certificate, and Book – Lexi Brewer, Kailua Intermediate***

“The destruction of the 21st century oceans: How is ocean acidification happening with and without plants”  
(Project ID: 22-EAEV-5467)

***Teacher Award in Junior Division, \$50 Cash Award, Certificate, and Letter – Kristen Gagesch, Kailua Intermediate*** (For Project ID: 22-EAEV-5467)

### SR Division

***\$150 Cash Award, Certificate, and Book - Maile Lei Ji & Nutnicha Go, Kealakehe High School***

“Sunscreen and Ocean pH Levels” (Project ID: 22-EAEV-0303)

***Teacher Award in Senior Division, \$100 Cash Award, Certificate, and Letter – Justin Brown, Kealakehe High School*** (For Project ID: 22-EAEV-0303)

## Hawaii Academy of Science Director’s Award

***\$100 Cash Award - Ezra Elrod, Pearl Harbor Christian Elementary School***

“Taming the Tsunami” (Project ID: 22-ENEV-5901)

## Hawaii Botanical Society

### JR Division

***\$150 Cash Award, 1st place winner – Lillian Tao, Waiakea Intermediate School***

“Investigation of the Potential Antioxidant Effects of a Native Hawaiian Plant” (Project ID: 22-TMED-5529)

***\$75 Cash Award, 2nd place winner – Michael Krog, Kailua Intermediate School***

“Greenhouse On The Red Planet” (Project ID: 22-EAEV-5301)

### SR Division

***\$150 Cash Award, 1st place winner - Ava Donald, Mililani High School***

“Processing a Biodegradable, Lightweight, Durable, Plant-Based, Fibrous Material out of Lolium multiflorum”  
(Project ID: 22-ENEV-0437)

***\$75 Cash Award, 2nd place winner – Maya Oishi, Hilo High School***

“Examining the Effectiveness of Organic Curcuma caesia and Curcuma longa (Turmeric) Powder on Drug Resistant Neuroblastoma Cancer Cells” (Project ID: 22-BCHM-0063)

## Hawaii Association of Environmental Professionals

### JR Earth and Environmental Science

***\$100 Cash Award – Michael Krog, Kailua Intermediate School***

“Greenhouse On The Red Planet” (Project ID: 22-EAEV-5301)

***\$100 Cash Award - Ella Lam & Katie Ta, Kaimuki Middle School***

“Cotton: Safe and Warm” (Project ID: 22-ENEV-5186)

***\$100 Cash Award – Layla Semder, Moanalua Middle School***

“Algae You Later CO2” (Project ID: 22-EAEV-5919)

***\$100 Cash Award – Vera Wang, Niu Valley Middle School***

“Classic Plastic Picker-Upper” (Project ID: 22-ENEV-5809)

**SR Earth and Environmental Sciences**

***\$100 Cash Award - Lauren Suzuki, Pearl City High School***

“Salinity Valve: Fresh Water Conservation” (Project ID: 22-ENEV-0033)

***\$100 Cash Award - Ashlynn Carney, Mililani High School***

“Investigating the Soil Properties of Pouhala Marsh” (Project ID: 22-EAEV-0395)

***\$100 Cash Award - Hope Rosenbush, Kamehameha Schools Kapālana***

“PH Levels and Their Effect on Urchin Fertilization” (Project ID: 22-EAEV-0105)

***\$100 Cash Award - Maile Lei Ji & Nutnicha Go, Kealakehe High School***

“Sunscreen and Ocean pH Levels” (Project ID: 22-EAEV-0303)

**Hawaii Water Environment Association**

***\$100 Cash Award – Marisa Draper, Kahuku High & Intermediate School***

“When Tourism Stopped: The Effects of Hawaii’s Tourism Industry on Ocean Pollution” (Project ID: 22-EAEV-0429)

***\$100 Cash Award – Tara Makena Ferguson & Jasmine Cadotte, Kalaheo High School***

“Using Computer Algorithms & Sensors To Effectively Optimize Water Usage for Indigenous Plant Irrigation” (Project ID: 22-EBED-0020)

***\$100 Cash Award – Landon Choy, Kamehameha Schools Kapālana***

“Harnessing the Energy in Waves to Generate Electricity” (Project ID: 22-EGSD-0062)

***\$100 Cash Award – Hope Rosenbush, Kamehameha Schools Kāpalama***

“PH Levels and Their Effect on Urchin Fertilization” (Project ID: 22-EAEV-0105)

***\$100 Cash Award – Benjamin Whitehurst, Pearl City High School***

“Watershed Computer Game” (Project ID: 22-SOFT-0230)

***\$100 Cash Award – Kailee Tanaka & Marissa Kusumoto, Iolani School***

“Quantification of the Concentration of Methicillin-Resistant Staphylococcus aureus in Waikiki beach waters” (Project ID: 22-MCRO-0330)

## Hawaiian Astronomical Society

### JR Division:

*Certificate & Subscription to Astronomy Magazine – James Ancheta, Iao Intermediate School*  
“Racing Asteroids” (Project ID: 22-PHYS-5246)

### SR Division

*Certificate & Subscription to Astronomy Magazine – Anica Ancheta, Baldwin High School*  
“Habitable Zones of Galaxies” (Project ID: 22-PHYS-0165)

## Illuminating Engineering Society - Hawaii

### JR Division:

*\$50 Cash Award – Blayze Arakawa, Kailua Intermediate School*  
“Cooling Colors” (Project ID: 22-EGSD-5310)

*\$50 Cash Award – Logan Schlueter, Hilo Intermediate School*  
“Energy From Nuts” (Project ID: 22-EGSD-5822)

### SR Division

*\$50 Cash Award – Natalie Kuo, Kaiser High School*  
“Monitoring CO2 Levels to Reduce the Spread of COVID-19 in Classrooms” (Project ID: 22-EBED-0417)

*\$50 Cash Award – Eric Toma, Waipahu High School,*  
“An Alternate Method of a Cooling System” (Project ID: 22-EGSD-0192)

## Institute of Electric and Electronic Engineers (IEEE-Hawaii Section)

### JR Division:

*\$100 Cash Award – Lia Baker & Sophia Hu, Washington Middle School*  
“Can this Drone Solve World Issues?” (Project ID: 22-EBED-5072)

*\$100 Cash Award – David Summers, Kaimuki Middle School*  
“Battery Efficiency” (Project ID: 22-EGSD-5184)

*\$100 Cash Award – Luka Milincic, Kaimuki Middle School*  
“Photoelectrons: Increasing Yield with Textured Surface” (Project ID: 22-EGSD-5268)

*\$100 Cash Award - Logan Schlueter, Hilo Intermediate School*  
“Energy From Nuts” (Project ID: 22-EGSD-58220)

### SR Division

*\$200 Cash Award - Landon Choy, Kamehameha Schools Kapalama*  
“Harnessing the Energy in Waves to Generate Electricity” (Project ID: 22-EGSD-0062)

*\$200 Cash Award – Michael Quinn, Castle High School*  
“Trial by Water-a “Budget” ROV” (Project ID: 22-ENMC-0361)

***\$200 Cash Award - Natalie Kuo, Kaiser High School***

“Monitoring CO2 Levels to Reduce the Spread of COVID-19 in Classrooms” (Project ID: 22-EBED-0417)

**McInerny Foundation**

***\$1,000 Cash/Scholarship Award - Alara Berkman, Seabury Hall***

“Coronary Artery Disease and the Design Process of Medical Implants” (Project ID: 22-ENBM-0358)

***\$1,000 Cash/Scholarship Award - Alex Tokunaga, Waipahu High School***

“Testing Alternate Building Material Designs for Greater Value from Limited Natural Resources” (Project ID: 22-MATS-0130)

***\$1,000 Cash/Scholarship Award - Alicia Daraban, Castle High School***

“Gamifying Learning by Repetition” (Project ID: 22-SOFT-0419)

***\$1,000 Cash/Scholarship Award - Henry Schiff, Kealakehe High School***

“Traversal Rates of Pathfinding in Geometric Graphs” (Project ID: 22-MATH-0401)

***\$1,000 Cash/Scholarship Award - Hinano Tsuchiya, Kalani High School***

“Serological Characterization of Drosophila S2 Cells-Expressed SARS-CoV-2 Spike Proteins” (Project ID: 22-BMED-0273)

***\$1,000 Cash/Scholarship Award - Kellen Apuna, Kamehameha School, Kapālama***

“Population Status and Monitoring of the Red-Crowned Parrot (*Amazona viridgenalis*) on O‘ahu, Hawai‘i” (Project ID: 22-ANIM-0077)

***\$1,000 Cash/Scholarship Award - Kenta Sakamoto, Roosevelt High School***

“Analyzing Earth’s Bow Shock Compression Ratio with Magnetohydrodynamic Limits” (Project ID: 22-PHYS-0030)

***\$1,000 Cash/Scholarship Award - Lauren Suzuki, Pearl City High School***

“Salinity Valve: Fresh Water Conservation” (Project ID: 22-ENEV-0033)

***\$1,000 Cash/Scholarship Award - Maya Oishi, Hilo High School***

“Examining the Effectiveness of Organic Curcuma caesia and Curcuma longa (Turmeric) Powder on Drug Resistant Neuroblastoma Cancer Cells” (Project ID: 22-BCHM-0063)

***\$1,000 Cash/Scholarship Award - Tyler Matsuzaki, ‘Iolani School***

“Modeling the Origin of Transcriptional Drift and its Role in Cellular Aging” (Project ID: 22-CBIO-0299)

**Teacher Awards:**

\$1,000 Cash Award (for classroom) - Anthony Ferro, Pearl City High School

\$1,000 Cash Award (for classroom) - Grant Yamashita, Kamehameha Schools, Kapālama

\$1,000 Cash Award (for classroom) - Jennifer Williams, Roosevelt High School

\$1,000 Cash Award (for classroom) - Justin Brown, Kealakehe High School

\$1,000 Cash Award (for classroom) - Kenneth Okawa, Kalani High School

\$1,000 Cash Award (for classroom) - Lucille Imamura, Waipahu High School

\$1,000 Cash Award (for classroom) - Malia Vaughn, Castle High School

\$1,000 Cash Award (for classroom) - Moka Brown, Seabury Hall

\$1,000 Cash Award (for classroom) - Pascale Pinner, Hilo High School

\$1,000 Cash Award (for classroom) - Yvonne Chan, 'Iolani School

## Nalu Studies

### JR Division:

***Framed Nohea Gallery Painting – Rayna Cabuslay, Our Lady of Good Counsel School***

“Filtering Water” (Project ID: 22-BMED-5785)

### SR Division:

***Framed Nohea Gallery Painting - Bryson Kau, Kamehameha Schools Kapalama***

“Antibacterial Effects of Naupaka (*Scaevola taccada*) Berries” (Project ID: 22-PLNT-0078)

## National Oceanic and Atmospheric Administration (NOAA)

***\$2,000 Scholarship Award – Blake Hironaka & Kenneth Hironake, Kauai High School***

“Determining the Effects of Several Biotic and Abiotic Factors on the Amount of Basking *Chelonia mydas*”  
(Project ID: 22-ANIM-0225)

***\$2,000 Scholarship Award – Hope Rosenbush, Kamehameha Schools Kapālama***

“PH Levels and Their Effect on Urchin Fertilization” (Project ID: 22-EAEV-0105)

***\$2,000 Scholarship Award – Michael Quinn, Castle High School***

“Trial by Water-a “Budget” ROV” (Project ID: 22-ENMC-0361)

***\$800 Honorable Mention Award - Landon Choy, Kamehameha Schools Kapālama***

“Harnessing the Energy in Waves to Generate Electricity” (Project ID: 22-EGSD-0062)

***\$400 Honorable Mention Award – Estefany Mae Bayudan & Eva Mendoza, Waipahu High School***

“Monitoring Air Quality through the Creation of a Sustainable and Inexpensive Air Filtration System” (Project ID: 22-EAEV-0150)

***\$100 Division Winner NOAA Tour Award – Layla Semder, Moanalua Middle School***

“Algae You Later CO<sub>2</sub>” (Project ID: 22-EAEV-5919)

***\$100 Division Winner Award – Micah Kazarian, Niu Valley Middle School***

“Buoyant Solutions” (Project ID: 22-ENEV-5758)

***\$100 Division Winner Award – Eileen Zhang, Kawanānakoā Middle School***

“Seawalls and Their Effectiveness Against Tsunami Waves” (22-ENEV-5379)

***\$100 Division Winner Award – Luka Milincic, Kaimuki Middle School***

“Photoelectrons: Increasing Yield with Textured Surface” (Project ID: 22-EGSD-5268)

***\$100 Division Winner Award – Braydon Cowan, Kailua Intermediate School***

“Hey Fish...Now You See Me, Now You Don't” (Project ID: 22-ANIM-5468)



## Project Vision Hawaii dba Hawaii Eye Foundation

**\$200 Cash Award – Sophia Yates, Saint Theresa School, Kaua‘i**  
“Effects of Coping Skills” (Project ID: 22-BEHA-5719)

**200 Cash Award – Fonotala Faraimo-Avegalio, Moanalua Middle School**  
“Shedding Light on the Scene” (Project ID: 22-BCHM-5922)

**\$200 Cash Award – Sophia Lafferty, Our Lady of Good Counsel School**  
“The Dirt Snatcher” (Project ID: 22-BMED-5095)

**\$200 Cash Award – Gavin Lum, Moanalua Middle School**  
“Let There Be Light” (Project ID: 22-ENMC-5868)

**\$200 Cash Award – Maya Gilfillan, Kailua Intermediate School**  
“Into The Light” (Project ID: 22-PLNT-5299)

## Society of American Military Engineers (SAME)

### JR Division

**\$50 Cash Award – Eileen Zhang, Kawananakoa Middle School**  
“Seawalls and Their Effectiveness Against Tsunami Waves” (Project ID: 22-ENEV-5379)

**\$50 Cash Award – Dana Delacruz, Highlands Intermediate School**  
“How Truss Designs Affect Strength” (Project ID: 22-ENMC-5830)

**\$50 Cash Award – Lexi Brewer, Kailua Intermediate School**  
“The destruction of the 21st century oceans: How is ocean acidification happening with and without plants?”  
(Project ID: 22-EAEV-5467)

### SR Division

**\$150 Cash Award – Cassidy Ibanez, Mililani High School**  
“Biomass Powered Desalination Year II: Combustion Tuning” (Project ID: 22-ENEV-0387)

**\$150 Cash Award – Harold Cacal, Waipahu High School**  
“Engineering a New Foundation For Buildings to Withstand Seismic Disruptions and Soil Liquefaction”  
(Project ID: 22-ENMC-0357)

## The Queen’s Health Systems

### JR Division

**\$250 Cash Award - Amara Landgraf & Sierra Lee, St. Andrew Schools, Priory**  
“Testing the Effectiveness of Various Face Coverings in Preventing Droplet Transmission” (Project ID: 22-BMED-5803)

**\$250 Cash Award - Brevin Tomoyasu-Oumi, Kawananakoa Middle School**  
“Measuring Air Particles and Particulate Matter” (Project ID: 22-EAEV-5526)

***\$250 Cash Award - Lynda-Jean Makanui, Kaneohe Elementary***

“Toilet Purification” (Project ID: 22-ENMC-5833)

***\$250 Cash Award - Nelson Moreira, Our Savior Lutheran School***

“Are You Really Protected?” (Project ID: 22-TMED-5885)

***\$250 Cash Award - Sophia Yates, Saint Theresa School, Kaua‘i***

“Effects of Coping Skills” (Project ID: 22-BEHA-5719)

**JR Teacher Awards:**

*\$100 Cash Award - Jay Hamura, St. Andrew’s Schools, Priory*

*\$100 Cash Award - Justine Almeida, Kaneohe Elementary School*

*\$100 Cash Award - Lorien Kuster, Our Savior Lutheran School*

*\$100 Cash Award - Samuel Hankins, Kawanānakoā Middle School*

*\$100 Cash Award - Somer Rickards, Saint Theresa, Kauai*

**SR Division**

***\$500 Cash Award - Amara Martin, Kamehameha Schools, Kapālama***

“Characterizing Nephrogenic Toxicity of Lithium as a Side Effect of Treatment for Bipolar Disorder” (Project ID: 22-BEHA-0068)

***\$500 Cash Award - Amaya Genovia, Kamehameha Schools, Maui***

“The Interplay of Glucose Metabolism and HBV Replication” (Project ID: 22-CELL-0139)

***\$500 Cash Award - Ayana Sakamoto, Roosevelt High School***

“Identifying the Role of Alternative Ribosomes in Inducing Biofilm Formation” (Project ID: 22-MCRO-0031)

***\$500 Cash Award - Belise Swartwood, Mililani High School***

“Comparing Neural Network Strategies to Label Tricuspid Valve on MRI Images” (Project ID: 22-BMED-0096)

***\$500 Cash Award - Natalie Kuo, Kaiser High School***

“Monitoring CO2 Levels to Reduce the Spread of COVID-19 in Classrooms” (Project ID: 22-EBED-0417)

**SR Teacher Awards:**

*\$100 Cash Award - Garrett Hatakenaka, Kaiser High School*

*\$100 Cash Award - Grant Yamashita, Kamehameha Schools, Kapālama*

*\$100 Cash Award - Jennifer Williams, Roosevelt High School*

*\$100 Cash Award - Malia Panglao, Kamehameha Schools, Maui*

*\$100 Cash Award - Nel Venzon Jr., Mililani High School*

**University of Hawaii at Mānoa, College of Engineering**

**JR Division**

***\$100 Cash Award – Lia Baker & Sophia Hu, Washington Middle School***

“Can this Drone Solve World Issues?” (Project ID: 22-EBED-5072)

***\$100 Cash Award – Abby Nii & Arawi De la Cuba, Kaimuki Middle School***

“Rotating Vertical Garden” (Project ID: 22-ENMC-5037)

***\$100 Cash Award – Catherine Yi, Highlands Intermediate School***

“Outside Wheel Material Effect in Vehicle Accuracy” (Project ID: 22-ENMC-5827)

**SR Division**

***\$300 Cash Award – Jaxon Poentis, Roosevelt High School***

“Using Hand Tracking and Server Architecture To Allow Online Control of a Robotic Hand” (Project ID: 22-ENMC-0003)

***\$300 Cash Award – Ray Allen Valdez & Philip Dionell Fernando, Waipahu High School***

“Using the Seebeck Effect to Power Vaccine Storage” (Project ID: 22-ENMC-0128)

***\$300 Cash Award – Michael Quinn, Castle High School***

“Trial by Water-a “Budget” ROV” (Project ID: 22-ENMC-0361)

**University of Hawaii Foundation**

***Four-Year Full Tuition Scholarship at the University of Hawaii***

Kylan Takakusagi, Waimea High School