



Connecticut Science & Engineering Fair

Quinnipiac University

March 9 - 14, 2020

These judging results are unaudited by the fair's Database Committee. The CSEF reserves the right to correct the listings.

Final Judging Results

Collins Aerospace Engineering Awards

[SchTown] [School] [Teacher]
[Proj#] [FCat] [Project Title]

Award Legend
Trophy Winners = 1, 2, ...
Medalists = m
Winners = w

Middle School

4001	PT	Transforming Ocean Wave Energy to Electrical Energy
Award	1	Student(s) Sujay Chava Grade 7 Town Ellington Atul Shreyas Konda Grade 7 Town Cromwell

- * Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS
- * CASE • The Jackson Laboratory Urban School Challenge Awards with IBM --- 4th Place Middle School - Trophy, Medallion
- * Collins Aerospace Engineering Awards --- 1st Place- Engineering Middle School- \$400 & trophy and Invitation Compete in Broadcom MASTERS
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

5513	P8	Producing Renewable Energy With Rainwater Gutter Systems Using Micro Hydro-Turbines
Award	2	Student(s) Elle Okoney Grade 8 Town BOZRAH

- * Lockheed Martin Physical Sciences Awards --- 4th Place- Physical Sciences 8th Grade Ind. - trophy and Invitation Compete in Broadcom MASTERS
- * Applied Technology Awards --- 2nd Place Middle School - \$200 and Trophy, Medallion
- * Alternative/Renewable Energy Awards --- 3rd Place Middle School - \$100 Cash and Trophy
- * Collins Aerospace Engineering Awards --- 2nd Place- Engineering MS- \$200 & trophy and Invitation Compete in Broadcom MASTERS
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * CT Architecture Foundation - The William M. Mack, AIA Award --- \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.
- * IEEE, Connecticut Section --- \$250 Honors Award -Junior
- * J.A. Augustine Award --- \$100 for excellence in physical sciences
- * Kathleen & David Smith Awards --- Kathleen & David Smith Award for Innovative Concept - \$100
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

4040	PT	Does The Baseball Bat You Use Affect How You Hit?
Award	3	Student(s) Porter Breton Grade 7 Town Manchester Zachary Nyberg Grade 7 Town Manchester

- * Collins Aerospace Engineering Awards --- 3rd Place- Engineering MS \$100 & trophy and Invitation Compete in Broadcom MASTERS



Connecticut Science & Engineering Fair

Quinnipiac University

March 9 - 14, 2020

These judging results are unaudited by the fair's Database Committee. The CSEF reserves the right to correct the listings.

Final Judging Results

Collins Aerospace Engineering Awards

Award Legend

Trophy Winners = 1, 2, ...
 Medalists = m
 Winners = w

[SchTown] [School] [Teacher]
 [Proj#] [FCat] [Project Title]

4037	PT	Utilizing Nanotechnology to Clean Up Oil Spills		
Award	m	Student(s) Adam Liu	Grade 8	Town Woodbridge
		Alesandro Gopal	Grade 8	Town Woodbridge

- * Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences MS Team- trophy, invite to compete Broadcom MASTERS
- * Future Sustainability Awards --- 2nd Place Middle School - \$200 Cash and Trophy
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion

5521	P8	The Power of a Wind Turbine		
Award	m	Student(s) Felicia Silva	Grade 8	Town Bozrah

- * Mathematics Awards - with ATOMIC --- 1st Place Middle School- \$150 from ATOMIC, and Trophy, \$300 from People's United Bank
- * Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place- Middle School- \$200 / trophy
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * U.S. Metric Association --- Certificate & \$25 gift card given by CSEF
- * Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash
- * Robert Francoeur Memorial Award --- Creative or innovative project in engineering or computer science by female students - \$200

High School

3050	LS	Early Diagnosis of Pancreatic Cancer via Urinary Biomarkers with a New, Rapid, and Simple Lateral Flow Assay		
Award	1	Student(s) Ana-Florina Galic	Grade 10	Town Riverside

- * Collins Aerospace Engineering Awards --- 1st Place- Engineering Senior High- \$500 & plaque,
- * Alexion Biotechnology Awards --- 3rd Place- Biotechnology Senior High- \$300 & plaque
- * Lunch with a Patent Attorney --- Lunch with a Patent Attorney

6038	PS	Object Detection Universal System [O.D.U.S]		
Award	2	Student(s) Siddhant Bhardwaj	Grade 9	Town Cheshire

- * Collins Aerospace Engineering Awards --- 2nd Place- Engineering Senior High- \$400 & plaque
- * American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 9-12 project
- * IEEE, Connecticut Section --- \$100 Honorable Mention

3055	LS	ENZYME TRIGGERED DEGRADATION STUDIES OF A NUCLEUS TARGETED NUCLEIC ACID NANOCAPSULE		
Award	3	Student(s) Ananya Aggarwal	Grade 12	Town South Glastonbury

- * Collins Aerospace Engineering Awards --- 3rd Place- Engineering Senior High- \$200 & plaque



Connecticut Science & Engineering Fair

Quinnipiac University

March 9 - 14, 2020

These judging results are unaudited by the fair's Database Committee. The CSEF reserves the right to correct the listings.

Final Judging Results

Collins Aerospace Engineering Awards

Award Legend

Trophy Winners = 1, 2, ...
 Medalists = m
 Winners = w

[SchTown] [School] [Teacher]
 [Proj#] [FCat] [Project Title]

6103 PS Utilization of Piezoelectric Elements for Power Generation on Wave-Impacted Shorelines within modifications of Breakwater Design.

Award **m** Student(s) **Ethan Pernek** Grade 12 Town Stratford

- * Alternative/Renewable Energy Awards --- 3rd Place High School - \$200 Cash and Plaque
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion

6529 PST Optimization of the Insoles: Material Testing to Maximize Athletic Results

Award **m** Student(s) **Myles Spiess** Grade 10 Town Old Greenwich
Nicholas Altman Grade 10 Town Mount Kisco

- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Samantha Freeman Award for Excellence in Sports Science or Engineering --- For Excellence in Sports Science or Engineering by a High School student, \$150 cash

3103 LS Improved Design and Field Verification of Varroa destructor Control with a Dual-function, Thymol-

Award **m** Student(s) **Raina Jain** Grade 12 Town Riverside

- * PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- 1st Place HS- Plaque & \$800 Stipend to Compete at GENIUS Olympiad
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Innovative Concept Award - \$100
- * Jon Chapis Memorial Award --- John Chapis Spirit of Innovation Award - HS \$200
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Environmental Project

6091 PS Incorporation of TiO₂-Ag Nanostructures into LDPE Bags, to Create an Antifungal Plastic Wrap to Reduce Food Waste

Award **m** Student(s) **Alexandra Mark** Grade 12 Town Greenwich

- * Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences Senior High Individual - \$200 & Plaque
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion

6059 PS Scale-up of Water-Splitting Hydrogen Production Using Piezo-Electrochemical Nanostructures and Ambient Processes

Award **m** Student(s) **Zachary Mester** Grade 12 Town Cos Cob

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Applied Principles Award - \$100



Connecticut Science & Engineering Fair

Quinnipiac University

March 9 - 14, 2020

These judging results are unaudited by the fair's Database Committee. The CSEF reserves the right to correct the listings.

Final Judging Results

Collins Aerospace Engineering Awards

[SchTown] [School] [Teacher]
[Proj#] [FCat] [Project Title]

Award Legend
Trophy Winners = 1, 2, ...
Medalists = m
Winners = w

3098 LS Smartphone Detection of Cardiovascular Disease using Retinal Features of Fundus Photography
Award m Student(s) Ella Moore Grade 10 Town Greenwich

- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Alexion Biotechnology Awards --- 4th Place- Biotechnology Senior High- plaque

3094 LS Carbon Nanowire Lab-on-Chip as a Rapid, Inexpensive, Lyme Disease Detection System
Award m Student(s) Sofia Pronina Grade 11 Town Greenwich

- * PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Applied Technology Awards --- Senior High Finalist - Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * Biophysical Society --- Biophysics Award- \$100

6066 PS Development of a Superhydrophobic Coating for Vehicular Surfaces to Promote Spontaneous Water Droplet Trampolining, Repulsion, and Reduced Icing Tendencies at Normal Pressures
Award m Student(s) Chiara Rissola Grade 11 Town Old Greenwich

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate given by ONR

3120 LS Design of a Lateral-Flow, Species-specific Rapid Diagnostic Test for Malaria
Award m Student(s) John Trudeau Grade 10 Town Greenwich

- * PepsiCo / Pfizer Life Sciences Awards --- 5th Place- Life Sciences Senior High- Plaque
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Alexion Biotechnology Awards --- 5th Place- Biotechnology Senior High- plaque

6093 PS Biomimicry of Woodpecker Anatomy to Improve Helmet Design in Prevention of Chronic Traumatic Encephalopathy
Award m Student(s) John Oei Grade 11 Town Hebron

- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High- \$500 & plaque
- * Yale Science & Engineering Association, Inc. --- 1 Certificate, Medallion and 1- \$25 gift card given by CSEF
- * University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$80,000 (\$20,000 per year)
- * Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100



Connecticut Science & Engineering Fair
Quinnipiac University
March 9 - 14, 2020

These judging results are unaudited by the fair's Database Committee. The CSEF reserves the right to correct the listings.

Final Judging Results

Collins Aerospace Engineering Awards

Award Legend
 Trophy Winners = 1, 2, ...
 Medalists = m
 Winners = w

[SchTown] [School] [Teacher]
 [Proj#] [FCat] [Project Title]

6049	PS	Subtractive Manufacturing Techniques for Preparing Inexpensive Thermoplastic Microlens Arrays
Award	m	Student(s) Andrea Lacunza
		Grade 12 Town Avon

- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report