



# Connecticut Science & Engineering Fair

## Quinnipiac University

March 14 - 18, 2017

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### Final Judging Results

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

## Barnes Aerospace Applied Technology Awards

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

### Middle School

**Bethany** Amity Reg Middle School - Bethany Campus Kevin Berean

4025 PT The Clean Drain

**Award** 1 **Student(s)** William Livesay **Grade 8 Town** Woodbridge  
 Joshua Feuerstein **Grade 8 Town** Woodbridge  
 Arnav Paliwal **Grade 8 Town** Woodbridge

- \* Pepsico Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion
- \* Barnes Aerospace Applied Technology Awards --- 1st Place Middle School - \$300 and Trophy, Medallion
- \* Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- \* UTC Aerospace Systems Awards for Excellence in Engineering --- 4th Place- Engineering 8th grade- trophy
- \* TurnKey Compliance Solutions Environmental Awards --- \$200 Cash Award Middle School- For excellence in environmental sciences

**Bethany** Amity Reg Middle School - Bethany Campus Kevin Berean

4001 PT Using Flocculation to Extract Chromium 6 From Water

**Award** 2 **Student(s)** Wendy Zhang **Grade 8 Town** Woodbridge  
 Claire Yuan **Grade 8 Town** Woodbridge

- \* Barnes Aerospace Applied Technology Awards --- 2nd Place Middle School - \$200 and Trophy, Medallion
- \* Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- \* Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion

**Hebron** Oei Homeschool Ellen McHugh

5537 P8 Developing a Prototype Atmospheric Water Generator System as a Clean, Safe and Sustainable Water Source

**Award** 3 **Student(s)** John Oei **Grade 8 Town** Hebron

- \* Pepsico Physical Sciences Awards --- 1st Place- Physical Sciences 8th Grade Ind.- \$300 & trophy, invite to compete Broadcom MASTERS
- \* Barnes Aerospace Applied Technology Awards --- 3rd Place Middle School - \$100 and Trophy, Medallion
- \* Sustainable Resources and Practices Awards --- 2nd Place Middle School - \$300 Cash and Trophy
- \* United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- \* Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Physical Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- \* NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
- \* Ct Architecture Foundation Award Name: The William M. Mack, AIA Award --- \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.
- \* Society of Women Engineers - Hartford Section --- Scientific Calculator

**Bethany** Amity Reg Middle School - Bethany Campus Kevin Berean

5525 P8 Waterbot

**Award** m **Student(s)** Jonathan Fischman **Grade 8 Town** Woodbridge

- \* Pepsico Physical Sciences Awards --- 3rd Place- Physical Sciences 8th Grade Ind, - \$100 & trophy, invite to compete Broadcom MASTERS
- \* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion



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**Bethany** Amity Reg Middle School - Bethany Campus Mr. Kevin Berean

4021 PT The Energy Band

**Award** m **Student(s)** Kabir Khwaja **Grade 8** **Town** Woodbridge  
Samuel Green **Grade 8** **Town** Bethany

- \* Pepsico Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion
- \* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- \* Energize CT/eesmarts Alternative/Renewable Energy Awards --- 2nd Place Middle School - \$200 Cash and Trophy

**Bethany** Amity Reg Middle School - Bethany Campus Berean

5569 P8 Injur-knee

**Award** m **Student(s)** Cameron Luciano **Grade 8** **Town** Woodbridge

- \* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion

**Bethany** Amity Reg Middle School - Bethany Campus Kevin Berean

4010 PT Using Nanotechnology to Clean Oil Spills

**Award** m **Student(s)** Aamnah Malik **Grade 8** **Town** Woodbridge  
Kathleen Inclima **Grade 8** **Town** Woodbridge

- \* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- \* National Oceanic and Atmospheric Administration --- Certificate and medallion, and \$25 Amazon gift card given by CSEF

**Bethany** Amity Reg Middle School - Bethany Campus Kevin Berean

5559 P8 Vision Shoe

**Award** m **Student(s)** Shyam Viswanathan **Grade 8** **Town** Woodbridge

- \* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- \* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- \* Xerox Computer Science Awards --- Middle School Finalist - Medallion
- \* American Meteorological Society --- Certificate & \$25 Amazon gift card given by CSEF
- \* IEEE, Connecticut Section --- \$100 Honorable Mention
- \* ISA - International Society for Automation - Ct. Valley Section --- 2nd - \$75 award
- \* Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"
- \* **The Karen J. Howell Middle School Award for "Learning and Serving"**  
--- The Karen J. Howell Middle School Award for "Learning and Serving" - \$1000



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**Bethany** Amity Reg Middle School - Bethany Campus Kevin Berean  
 5519 P8 Extinguish-Bot  
**Award** m **Student(s)** Weiss Yuan **Grade** 8 **Town** Woodbridge

- \* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- \* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- \* UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering 8th grade - CSF Medallion
- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- \* Ricoh Americas Corporation --- Certificate, \$25 Amazon gift card given by CSEF
- \* American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project

**Danbury** Westside Middle School Academy Jon Nehausel  
 5503 P8 Examining the impact of window moisture on the strength of a wifi signal.  
**Award** m **Student(s)** Jordan Lema **Grade** 8 **Town** Danbury

- \* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion

**Hamden** Hamden Middle School Michelle DeLucia  
 5545 P8 Constructing a CoreXY Dual Extrusion Fused Filament Fabrication Apparatus  
**Award** m **Student(s)** Conner Larocque **Grade** 8 **Town** Hamden

- \* Pepsico Physical Sciences Awards --- 2nd Place- Physical Sciences 8th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
- \* CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- 5th Place Middle School - Trophy, Medallion
- \* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- \* UTC Aerospace Systems Awards for Excellence in Engineering --- 2nd Place- Engineering 8th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS
- \* United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- \* U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate
- \* IEEE, Connecticut Section --- \$100 Honorable Mention

**New Haven** Engineering Science University Magnet School Roger Rushworth  
 2510 L8 How do Different Types of Street Lights Impact Our Environment and What is the Safest Way to Illuminate Our Streets?  
**Award** m **Student(s)** Eva Heaphy **Grade** 8 **Town** New Haven

- \* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- \* Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- \* Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum
- \* Environmental/ Energy Award- Urban Public School Award --- \$100 Award for top environmental or alternative energy project from a New Haven public school



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### High School

**New Haven** Engineering Science University Magnet School Heather Toothaker

6005 PS A Novel Rapid Diagnostic Test for Zika Virus NS1 Protein using Nanoribbon Microfluidics

Award 1 Student(s) Lauren Low Grade 12 Town Hamden

- \* Pepsico Physical Sciences Awards --- 4th Place- Physical Sciences Senior High Individual - Plaque
- \* CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Senior High Finalist - Medallion
- \* Barnes Aerospace Applied Technology Awards --- 1st Place High School - \$500 and Plaque, Medallion
- \* UTC Aerospace Systems Awards for Excellence in Engineering --- 2nd Place- Engineering Senior High- \$500 & plaque
- \* Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for HS Student & \$250 cash
- \* IEEE, Connecticut Section --- \$100 Honorable Mention
- \* Arthur Mensing Award --- \$1000 cash award for excellence in the physical sciences

**Suffield** Suffield High School Mitchell Charkiewicz

6027 PS A Novel Approach to Measuring Reaction Times in a Simulated Driving Environment

Award 2 Student(s) Caitlin Kirschbaum Grade 12 Town Suffield

- \* Barnes Aerospace Applied Technology Awards --- 2nd Place High School - \$300 and Plaque Medallion
- \* American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project

**Greens Farms** Greens Farms Academy Mathew Freeman

3136 LS Improvements on design of biologically inspired modular prosthetics for general use.

Award 3 Student(s) Robert Marcus Grade 12 Town New Canaan

- \* Barnes Aerospace Applied Technology Awards --- 3rd Place High School - \$ 200 and Plaque, Medallion

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle

3072 LS Developing a Minimally Invasive Form of Enhancing In Vitro Cellular Growth via Ultrasonic Frequencies

Award m Student(s) Emily Luciano Grade 12 Town Stratford

- \* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

**Fairfield** Fairfield College Preparatory School Deborah Kiel

6054 PS The Application of Object Tracking in Surgery Robotics

Award m Student(s) Hanxuan Mo Grade 12 Town Fairfield

- \* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
- \* U.S. Metric Association --- Certificate & \$25 Amazon gift card given by CSEF



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**Greens Farms** Greens Farms Academy Mathieu  
 6076 PS Designing and Implementing a Flexible Support System for the Finger Injury Prevention in High-Impact Sports and Applications

**Award** m **Student(s)** Charles Thompson **Grade** 12 **Town** Southport

- \* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
- \* Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"

**Greenwich** Brunswick School Dana Montanez  
 3542 LST Human fingerprints and Gecko Setae: A fusion of configurations to create a super-grip, non-slip surface

**Award** m **Student(s)** Thacher Scannell **Grade** 11 **Town** Stamford  
 Avi Mukherjee **Grade** 11 **Town** Stamford

- \* Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High Team- \$500 (split) & Plaque
- \* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

**New Britain** Goodwin Technical High School Steve Donaghy  
 6528 PST Solar powered survival Jacket with a organic type battery back up. to recharge or power a cell phone or LED lights.

**Award** m **Student(s)** Daniel Garcia **Grade** 10 **Town** New Britain  
 Juan Ospina **Grade** 10 **Town** New Britain  
 Daneirys Rivera **Grade** 10 **Town** Bristol

- \* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

**New Haven** Bruder Homeschool John Bruder  
 6051 PS Design, build, and code a cellular/WiFi enabled smart thermostat using a microcontroller and a custom Android app to increase energy efficiency for homes and workplaces.

**Award** m **Student(s)** Ben Bruder **Grade** 10 **Town** New Haven

- \* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
- \* ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card
- \* Zepke Award --- \$200 - For the Best Use of Electronic Circuitry
- \* University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Electrical

**Shelton** Shelton High School Dr. Rivera  
 6046 PS Cycling Assisted Brake

**Award** m **Student(s)** Kyle Young **Grade** 9 **Town** Shelton

- \* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- \* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
- \* University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Mechanical



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**Trumbull** Christian Heritage School Daniel Cote  
 6018 PS The Design and Fabrication of a Zero Carbon Emissions Compressed Air Engine Eliminating Batteries and Other Associated Environmental Impacts

**Award** m **Student(s)** Judah Immanuel **Grade** 11 **Town** Woodbridge

\* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

**Woodbridge** Amity Regional High School Deborah Day  
 6093 PS Designing a Protective Cap To Reduce Impact Force and Head Trauma

**Award** m **Student(s)** Quinnlan Burke **Grade** 11 **Town** Woodbridge

\* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

\* American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project