



Girls in Manufacturing Newsletters

Dream It. Do It. WNY

Sponsored by the Appalachian Regional Commission

Featuring:

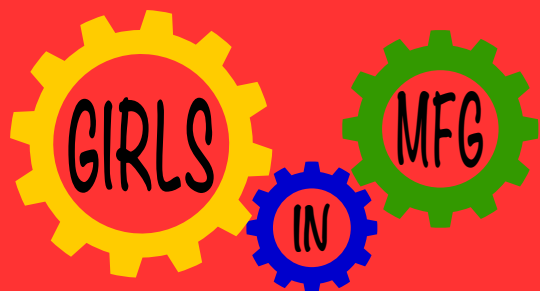
Cuba-Rushford Central School

Olean Intermediate Middle School

Allegany-Limestone Central School

Hinsdale Central School

Portville Central School



Dream It. Do It. WNY

**Thank you to members of MAST, ARC, and our area
Women in Manufacturing**



Girls in Manufacturing

Funded by a grant through the Appalachian Regional Commission



Winners of this year's DIDI 500 from Hinsdale Central School.

Our Girls in Manufacturing Program is off to a great start!!

Dream It. Do It. WNY recently received a grant from the Appalachian Regional Commission to start a new program, *Girls in Manufacturing*. Collaborating with area schools and manufacturers, DIDI's *Girls in Manufacturing* program is encouraging girls to expand their skills in science, technology, math, and the arts by introducing them to professional women in our area. Through tours, clubs, presentations, activities, camps and more, *Girls in Manufacturing* hopes to inspire girls ages 9 - 14 to consider a possible career in advanced manufacturing.



Updates

At a meeting with the Women in Mfg Committee, a group of eager, energetic, skilled mentors had a few valuable suggestions, including the following:

- Summit on March 24th (pending)
- Possible videos for circulation
- Presentations for Girls in Mfg Club
- Mfg Day for Girls in the Fall of 2018

Upcoming Events

- Family STEAM Night at CRCS Friday, Jan 26
- Eaton Young Mfg Academy. February 19-23
- FRI@MTI - Every Friday at JCC
- Girls in Mfg Summit, Saturday, March 24, 2018
- Mfg & STEM Fair April 20th, 2018 Portville High

Girls in Manufacturing School Clubs

Olean Middle School is creating a *Girls in Manufacturing* club, led by 5th grade teacher and robotics coach, Christine Armstrong Gabler. OIMS will be following a similar curriculum to Cuba-Rushford, with a few tweaks. A new MakerSpace is being developed at OIMS, which will be the meeting place for the club. It was suggested by both Jen Mahar and Laurie Cuddy (Hinsdale) that the *Girls in Manufacturing* club coaches meet regularly to share experiences, curriculum, and best practices. Great idea!

Portville has also signed up to have a *Girls in Manufacturing* club. Monica Pascucci and David Suain, director of the Envisioneering Center at Portville, are excited about this partnership, as it will add a formal element to a few girls who already stay at the Center after school. It will also encourage more participation by girls, teamwork, and purpose. They are most looking forward to the mentoring by area Women in Manufacturing. The Envisioneering Center at Portville is an amazing resource for the students. Their curriculum and presentations by our area manufacturers will be adapted according to their advanced manufacturing equipment.



Hinsdale is in the process of creating a club, led by Mary Parr, a math and science teacher. Mary's team of 4 girls at the DIDI 500 won the high school competition this year, with the added last-minute twist - a motor! Mary had the idea of having the winning team act as mentors to the *Girls in Manufacturing* club for the first month, working on the rubber band cars then later adding the motors. During this time, Hinsdale teachers will create a curriculum for Hinsdale, based on their teachers' strengths (apparently rockets will be involved!) Most exciting was the fact that Hinsdale principal Laurie Cuddy suggested sending three teachers for training in Lego Robotics over the summer, to add to the *Girls in Manufacturing* club and allow Hinsdale to have teams for the Lego League competition in the fall. Awesome!!

Cuba-Rushford had its first meeting of the *Girls in Manufacturing* club this past Wednesday. Science teacher, Shannon Albert, and principal, Katie Ralston, are most excited about the club. Shannon created a curriculum to share with the other teachers, to be followed or adapted, according to the schools' strengths. The first meeting went as follows:

We played a quick team building activity. Then I taught them how to make a basic car with K'Nex. Each team built one then we discussed how to make the car go faster with gears. Some of the girls tried a new trick robot called Ollie. Finally we ended the day by beginning to plan unique car designs. It went very well! I am so excited! —Shannon Albert



Girls in Manufacturing

Funded by a grant through the Appalachian Regional Commission



Elise Griffiths, Product Development Engineer at SolEpoxy, gives a most inspiring presentation at Hinsdale's first Girls in Mfg Club meeting

Girls in Mfg Clubs are up and running!

To date, 58 girls have signed up for the DIDI Girls in Mfg Clubs in Olean, Hinsdale, Portville and Cuba-Rushford. Allegany-Limestone plans to start their club in the next few weeks. Teachers have developed exciting and varied curricula to introduce girls to careers in advanced manufacturing. Elise Griffiths from SolEpoxy will be visiting each club with a presentation that takes the girls through the various steps and possible careers in manufacturing, using a necessary staple as an example - the Oreo cookie!



Updates

Through meetings and discussions with area Women in Manufacturing, the Girls in Manufacturing Summit is starting to take shape. We are looking for the following:

- Keynote speaker
- Brief, inspiring presentations
- Hands on activities, including chemistry, robotics, electronics, math and technology
- Mentors at each table during lunch

Upcoming Events

- Eaton Young Manufacturers Academy.
February 19th -23rd
- FRI@MTI - Every Friday at JCC
- Olean STEAM Competition
Friday, March 14th
- Girls in Mfg Summit,
Saturday, March 24,
- Mfg & STEM Fair
April 20th, 2018
Portville High School

Hinsdale Central School

Following a visit by Elise Griffiths, Hinsdale Girls in Mfg Club will be starting their first project - the building of a rubber-band-powered car! Girls will be bringing in supplies from home and around the school, being resourceful and creative. It's all part of the manufacturing process!



Cuba-Rushford Central School

At the CRCS STEAM Night, the Girls in Mfg Club gave a presentation to over 200 parents about their recent project - Vehicle Design with K'nex. After the break, Cuba-Rushford will be learning about 3D printing and CAD, designing a locker organizer. Perhaps we will be seeing someone on Shark Tank in the near future!



Olean Intermediate Middle School

The Olean club keeps on growing! More girls showed up for the second meeting, where Elise gave her inspiring presentation. The OIMS club will be designing their rubber band powered cars, having a race then moving on to the motorized version. Start your engines!



Girls in Manufacturing

Brooke Gronemeier, 2017 graduate of Olean High School, is studying Mechanical Engineering Technology at University of Dayton in Ohio. Brooke spent her summers working at CUTCO and interning at Napoleon Engineering Services through Dream It. Do It. WNY. As the DIDI 500 Ambassador for Olean High, Brooke helped to organize and encourage fellow Huskies to participate in the DIDI 500. We hope to have Brooke visit the Girls in Mfg Clubs when she finishes her first year at Dayton!

"The most important thing to remember is.... you can do it! Engineering may be a male dominated field but you are just as capable. Everything the guys learn, you can too! You'll be able to put your amazing brains to use in creative ways that are so much fun and fulfilling!" ~. Brooke Gronemeier



Girls in Manufacturing



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*2018 Winning Team: The Winners! (Yes, that was their name!)
Chava Kerling (Olean), Kaylie Foskit (Hinsdale), Elena Barie (Sinclairville),
and Kaitlin Yowell (Portville)*

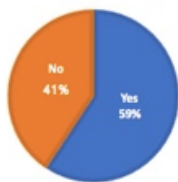
5th Grade Team wins the final race!

The Eaton Young Manufacturers Academy was a great experience for everyone, with students making new friends from other schools - all while learning about coding, robotics, electronics, 3D printing, drafting, 5 Whys, scientific method, machining and more. Eight teams competed in a race, with cars (not sleds!) that their group designed, tested and raced. The winning team's name was.... The Winners!

The *Girls in Mfg Clubs* are having an effect on the girls' thoughts on pursuing a career in manufacturing. When asked the question, "Would you consider a career in Manufacturing?", 81% said YES before participating in all of the activities! This shows that the clubs are definitely peaking their interest in possible future careers in the area of advanced manufacturing.

Before and after YMA, students were asked, "Would you consider a career in Manufacturing?"

Responses from all members of YMA



Responses from Girls at YMA



Updates

The schedule has been set for the Girls in Mfg Summit Saturday, March 24th, 2018

9:00 Registration

9:15 Speakers

- Lori Cornell
Governor Cuomo's office
- Mary Deegan-Collins
SolEpoxy
- Elise Griffiths
Professor DIDI, SolEpoxy
- Christine Otto
Cutco

10:00 Activities - Rotation

- 3D Printing
- Mechanical Engineering
- CNC and Welding
- Mad Science

12:00 Lunch

- Guest - Kayte Malik, CEO
Dresscode, Chicago

1:00 Surprise!!

- Chemistry Demonstration

Upcoming Events

- Girls in Mfg Summit,
Saturday, March 24
- Mfg & STEM Fair
April 20th, 2018
Portville High School
- FRI@MTI - Fridays at JCC
- Professor DIDI Club visits
- Summer Eaton Young
Manufacturers Academy,
July 31 - Aug 3
- JCC Kids' College
July - August 2018

Mfg & STEM Fair Visit

During the club members' visit to the fair, the girls visited 26 manufacturers and educational organizations - and also had a bit of fun!! SolEpoxy had a messy science activity of making bouncy balls and observing chemical reactions. Club members were also able to visit women in manufacturing who they met at the Girls in Mfg Summit last month. A few girls expressed interest in the Young Entrepreneurs Academy and later enjoyed a 3D activity at the Cutco table.

One observation for the future was that there wasn't enough time! We'll work on scheduling for next year, allowing club members to visit more manufacturers and enjoy the fun STEM activities.



Professor DIDI inspires a young artist!

Maddison Collins, 7th grader at Portville Central School, was inspired by Professor DIDI's presentation and went straight to the laser engraver in the Envisioneering Center to create a plaque for Girls in Manufacturing! Thank you Maddison! Look for our next newsletter with more about Professor DIDI's visits and some info about our new Professor DIDI.



Women in Manufacturing

Allison Forness, 2016 graduate of Allegany-Limestone Central School, is studying Chemical Engineering at University of Rochester. Allison was our first Professor DIDI, creating a series of energetic videos explaining some interesting concepts about chemistry. During her summer internship with Dream It. Do It., Allison interviewed area women in manufacturing and also worked with JCC Kids' College, designing and assisting with programs like Messy Science! It was so popular, we are planning it again for this coming summer. We hope to see Allison back in the area



Earning a chemical engineering degree has taught me so many important lessons already, the most important one being that you can learn the most from the people you work with. Collaboration is how the engineering world works, and I've had so many female peers inspire me to be the best engineer I can be. So always remember to work with others and be willing to learn from anyone and everyone, because it will always make you better! ~ Allison Forness

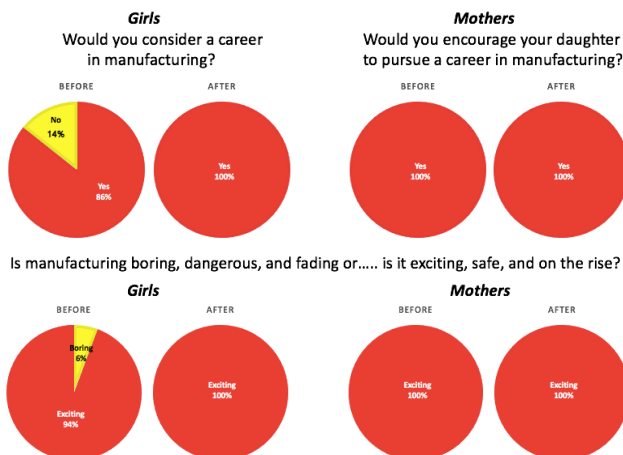
Girls in Manufacturing

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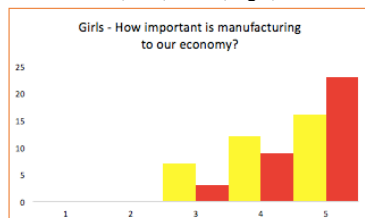
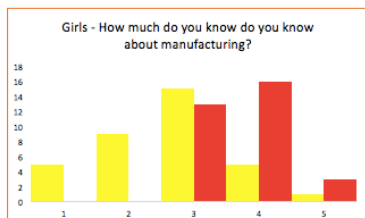


On Saturday, March 24, 2018, Girls in Mfg Club members along with friends, sisters, mothers, grandmothers, manufacturers, teachers, principals and volunteers gathered to celebrate our first Girls in Mfg Summit at Jamestown Community College in Olean, NY.

Before and after the Girls in Mfg Summit,
participants were asked the following questions:



Before After On a scale of 1 (low) to 5 (high)

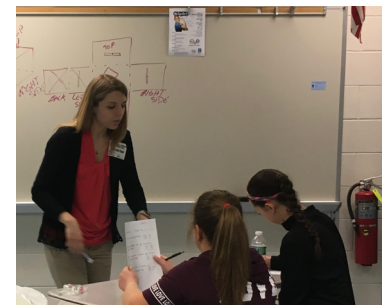


Thank you to the following for making this day possible:

Senator Catharine Young
ARC
Dresser-Rand
NES
SolEpoxy
Eaton
Cutco
MAST
ELANTAS
AirGas
JCC Continuing Ed
Union Tea Cafe
Olean CSD
Cuba-Rushford CSD
Hinsdale CSD
ALCS
Portville CSD
Randolph Girl Scouts
OBDC
DIDIWNY

Updates

Our Girls in Mfg Mentors have been busy! Professor DIDI, Elise Griffiths of SolEpoxy, has now visited all clubs with an inspiring presentation about manufacturing. Professor DIDI, Chantal Cook of Cutco, has started a new series of presentations, *Design and Drafting*, beginning at ALCS. A new Professor DIDI, Morgan Hatfield of Dresser-Rand, is planning a series of presentations: *Lean Lego Manufacturing*.



Chantal Cook, Cutco, at ALCS

Upcoming Events

- Mfg & STEM Fair Friday, April 20, 2018
Portville High School
- Girls in Mfg Club meetings
- Professor DIDI Club visits
- Club car races!
- Summer Eaton Young Manufacturers Academy, July 30 - Aug 2
- JCC Kids' College July - August 2018

Registration:

What a great turnout! We had 38 girls (17 were club members), 27 mothers & grandmothers and 18 volunteers for our Girls in Mfg Summit. Check out our website for more pictures and info.
didiwny.com/cattaraugus-county-events

Speakers:

The day began with a welcome from Governor Andrew Cuomo's office, through Lori Cornell. Elise Griffiths and Mary Deegan-Collins gave inspiring presentations with a surprise message from Brooke Gronemeier, former DIDI intern.

Workshops:

Throughout the morning, participants rotated through four of the following workshops:

Marketing & IT:

Ronni Gronemeier and Christine Otto from Cutco gave a presentation and hands-on activity about the use of Information Technology in manufacturing. Our 3D Ambassador, Byron Ring, designed and built 3D key rings for everyone!

Mad Science:

Shannon Albert, CRCS, and Minnie Ringland, SolEpoxy, led some exciting mad science activities for everyone involved.

Lean Manufacturing:

Morgan Hatfield, Dresser-Rand, and Christine Gabler, OIMS, did a Lean Manufacturing activity, building paper airplanes in an efficient manner!

CNC & Welding:

Michelle Bouch, Cutco, and Xavier Smith, OSM, walked the participants through the exciting world of welding and CNC.

Lunch:

Kayte Malik, dresscode.org, spoke to the students at lunch (Union Tea) about starting up a business and her integration of coding and fashion.

Ice cream:

Stephanie Pikulski, ELANTAS, and Kaitlyn Penston, SolEpoxy, made a delicious and educational dessert - ice cream - thanks to AirGas.



Comments from participants:

I loved everything. It was incredible. ALCS 6th
This was really fun and I learned a lot! (Plus the special treat was delicious!) OIMS 6th
I would probably want to be an engineer when I grow up. CRCS 5th
I love manufacturing because I am learning so much about it. Hinsdale 5th
Morgan is my role model! ALCS 5th
I loved all of the activities. Especially the ice cream! Portville 5th



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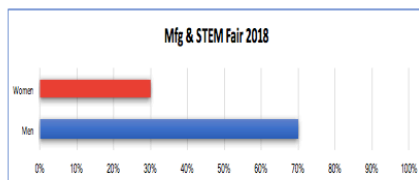
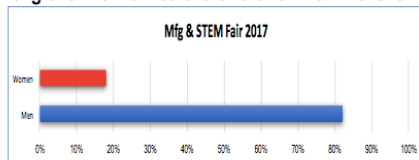
Girls in Mfg Club members from Hinsdale, Portville, Cuba-Rushford, Olean Intermediate Middle School, and Allegany-Limestone met at the seventh annual Mfg & STEM Fair at Portville High School in the new Envisioneering Center.

We set a record!

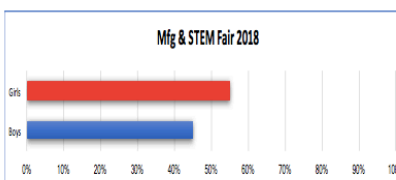
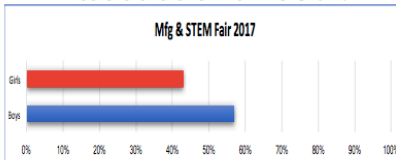
What an exciting day at Portville Central School. Almost 1100 students from 18 area schools visited the 7th annual DIDI Mfg & STEM Fair. Teachers worked with students for weeks prior to their visit, preparing them for the scavenger hunt, which created a curious and respectful group of students attending this year's fair. Thank you to all of the manufacturers, educational organizations and, most of all, Portville Central School for hosting the event.

Our Girls in Mfg Program has had a positive effect on participation by girls at DIDI events but also women in manufacturing. Below is an example of the improvement in participation by women and girls between 2017 and 2018 at our Mfg & STEM Fairs. Thank you to all involved!

Participation by **women** as mentors at the Mfg & STEM Fair before and after the ARC Grant.



Participation by **girls** at the Mfg & STEM Fair before and after the ARC Grant.



Updates

Registration has started for the Eaton Young Manufacturers Academy, July 30 - Aug 2. Many of our club members have already registered!

Instructors for this year's program include:

David Taylor, Engineer and Teacher at Franklinville Central School.

Shannon Albert, Science and STEAM Teacher at Cuba-Rushford Central School.

The program is sponsored by Eaton CPSD, DIDI WNY, and members of MAST.

JCC Continuing Education is assisting with the program again this summer. If you have any students interested in the Eaton YMA, please register through JCC at 716-376-7506

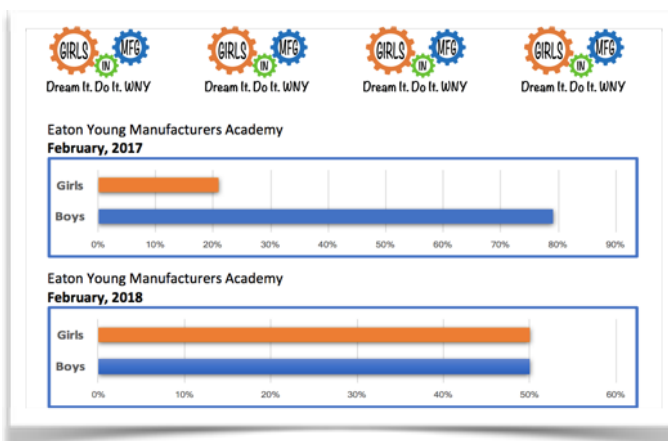
Upcoming Events

- Professor DIDI Lean Manufacturing Presentations
- Manufacturer Tours
- Summer Eaton Young Manufacturers Academy, July 30 - Aug 2
- JCC Kids' College July - August 2018

For all newsletters, visit didiwny.com/cattaraugus-county-events

Eaton Young Manufacturers Academy

The *Girls in Manufacturing* program is starting to have an effect on other Dream It. Do It. events. In 2017, the Eaton Young Manufacturers Academy had 29 participants with only six girls. This year it was an even split! Sixteen girls and sixteen boys! We hope to see this in future events, and eventually school programs such as Project Lead the Way and Robotics.



ALCS had a visit from Professor DIDI

Elise Griffiths, aka Professor DIDI, paid a visit to Allegany-Limestone's Girls in Mfg Club. ALCS has been working with Mr. Smith in the technology room, creating a new version of the rubber-band cars. We're looking forward to each club sharing their creations - perhaps a race is in the near future!



Cuba-Rushford Club attends FRI@MTI

What an awesome day at JCC! The Girls in Mfg Club from CRCS met with Xavier Smith in the new MTI building at JCC. The girls did some machining, grinding, engraving, hammering - all in an effort to create a spinning top, including their own initials. More pictures can be found at <https://flic.kr/s/aHsmh9xqXn>



Women in Manufacturing

Krissy Chapman is a senior at Hinsdale Central School and will be attending Alfred University in the fall, majoring in Ceramic and Glass Science Engineering. The winning team for the 2017 DIDI 500 was a team of four girls from Hinsdale Central - led by Krissy Chapman! Krissy has been mentoring the Girls in Mfg Club at Hinsdale (photo, center) and plans to intern with Dream It. Do It. this summer, visiting area manufacturers and gathering information on career opportunities for Women in Manufacturing.



If you can dream it, you can do it! Don't let anyone tell you that you can't do it or you won't be able to succeed. If anyone ever tells you that you can't, try your hardest and prove them wrong! Shoot for the stars and always give 110% and you will be able to accomplish anything you put your mind to. ~Krissy Chapman

DREAM IT. DO IT. WNY

JUNE 2018



Girls in Manufacturing

Funded by a grant through the Appalachian Regional Commission



Olean Intermediate Middle School Girls in Mfg Club Members' field trip!

OIMS Girls in Mfg club visits SolEpoxy!

1.5 miles. No problem!! Well almost. After navigating a few bumpy sidewalks, the girls finally made it for an exciting tour and fun activity in the labs of SolEpoxy. The girls were met by two Professor DIDIs, Elise Griffiths and Ally Forness, as well as chemist Phil Farris for an informative tour. The group actually went into the freezer for a taste of how SolEpoxy keeps it's product fresh and non-reactive. Brrrrrr! Following the tour, each girl put on their protective goggles and protective gloves to work in the lab, observing chemical reactions and creating their own unique bouncy ball. The walk back to OIMS was filled with questions, comments, and reflections about the tour. Thank you to Mrs. Christine Gabler for, over the past semester, helping the girls realize why science and math are so important, leading to possible careers for women in the manufacturing field.

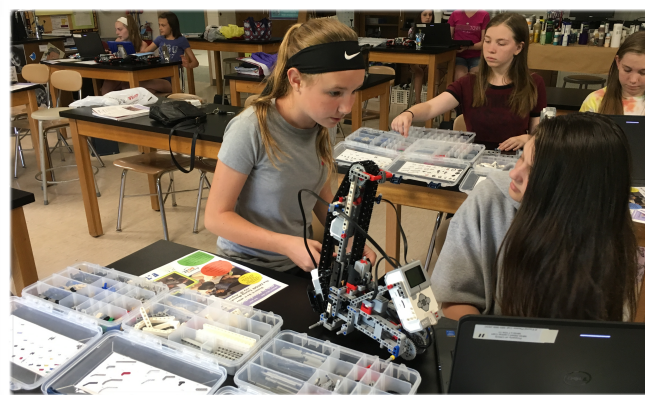


Thank you to the following members of the Dream It. Do It. Girls in Mfg Advisory Committee:

Amy Merchel - NES
Chantal Cook - CUTCO
Christine Gabler - OIMS
Christine Otto - CUTCO
Crystal Wiech - SRS
Elise Griffiths - SolEpoxy
Evelyn Sabina - Dream It. Do It.
Jen Mahar - OCSO
Jennifer Noll - Eaton
Jill Robinson - ALCS
Kaitlyn Penston - SolEpoxy
Kathleen Martel - JCC
Katie Ralston - CRCS
Kim LaMendola - STWS
Krissy Chapman - Hinsdale
Lauren Stutz - SolEpoxy
Laurie Cuddy - Hinsdale
Lori Cornell - Governor's Office
Mary Deegan-Collins - SolEpoxy
Mary Parr - Hinsdale
Melanie Wemmell - Retired
Melissa Curran - NES
Melissa Jaime - SolEpoxy
Michelle Bouch - CUTCO
Minnie Ringland - SolEpoxy
Monica Pascucci - Portville
Morgan Hatfield - Dresser-Rand
Ronnie Gronemeier - CUTCO
Shannon Albert - CRCS

Climbing Stairs?

Members of the Cuba-Rushford club created and programmed a robot that actually climbed stairs! This club covered robotics, TinkerCad, 3D printing, coding, electronics, and CNC machining this semester. Not bad for 4 months! Thank you to Mrs. Shannon Albert for your exciting new ideas each week as well as your weekly encouragement, giving the girls confidence to realize they can one day be a part of the manufacturing industry!



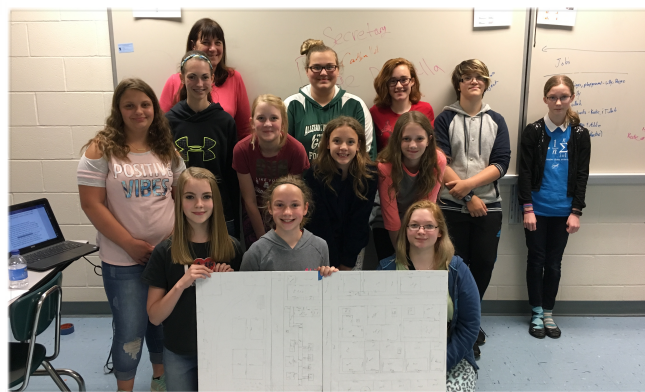
On your mark... get set.....

The Hinsdale Girls in Mfg Club had an exciting race at the end of the school year with their rubber-band-powered cars. The girls have already started creating a few teams for this year's DIDI500, won last year by a team from Hinsdale! Thank you to Mrs. Mary Parr and Krissy Chapman for your collaboration and creativity with the Hinsdale Club. Good luck at Alfred University next year, Krissy!



It Takes a Village

The Allegany - Limestone Girls in Mfg Club has an exciting project planned for this coming September. The girls designed a village that they will be creating, using a 3D printer! The club has already designed the first shop for the new village: The Dream It. Do It. Doughnut Shoppe. The project will integrate some of their learnings from this past year including drafting, the engineering design process, TinkerCad, 3D printing and more. Sounds exciting! Thank you to Mrs. Jill Robinson for all of your time and hard work this past year! We'll miss you!



WOMEN IN MANUFACTURING

Elise Griffiths graduated from the University of Colorado with a B.S. in chemical engineering and a minor in business. She is now a product development engineer at Solepox, Inc. In addition to working in the lab, Elise moonlights as Professor DIDI and gives exciting presentations about manufacturing to the local clubs here in WNY.

The difference between science and goofing around is writing down what you did!

~Elise Griffiths





Girls in Manufacturing

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Thank you, Professor DIDI

Professor DIDI began last summer with a series of videos by Allison Forness (above), DIDI Summer intern and student of Chemical Engineering at University of Rochester. Allison will be interning with

SolEpoxy this summer. Elise Griffiths, Product Development Engineer with SolEpoxy, assumed the title of Professor DIDI with an amazing series of workshops. Her presentation "What is Manufacturing" and "Toxic Waste Activity" (no

worries...it was safe!) has influenced over sixty girls in five area Girls in Mfg Clubs. Our new Professor DIDs include Chantal Cook (Drafting) from Cutco and Morgan Hatfield (Lean Manufacturing) of Dresser-Rand. We are also looking forward to more Professor DIDI videos this summer. Stay tuned!



Updates

Below are comments from Professor DIDI's survey:

- Great presentation!
- I love Girls in Mfg Club!
- I loved Professor DIDI's personality!
- It was fun and we used teamwork to get it done.
- I loved it!!
- Thank you for doing this. It was very nice of you. Great job!
- It was really fun and I learned a lot about manufacturing. Professor DIDI did a great job teaching us about it!
- My opinion is that it was super fun and learning experience. It was the best STEAM thing yet!
- The activity was really fun but the timing put pressure on me so maybe no timing

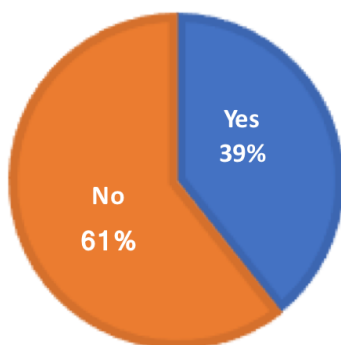
Upcoming Events

- Summer Eaton Young Manufacturers Academy
July 30 - August 2
- Girls in Mfg Club meetings
September 2018
- National Manufacturing Month - October 2018
- Dream It. Do It. 500.
November 2018,
St. Bonaventure University

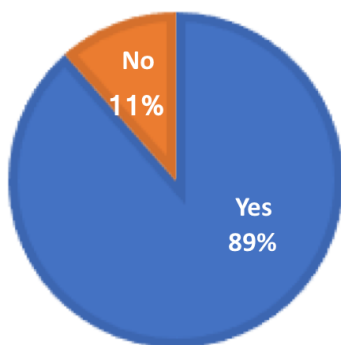
Professor DIDI (Elise Griffiths) created a survey completed by the girls before and after her presentation. Club members were asked if they would consider a career in manufacturing, if they enjoyed the activity, and if they enjoyed the presentation. Below are the results:

Would you consider a career in manufacturing?

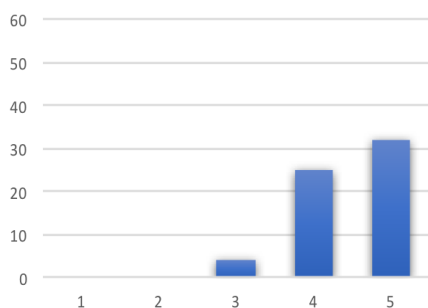
Before meeting Professor DIDI



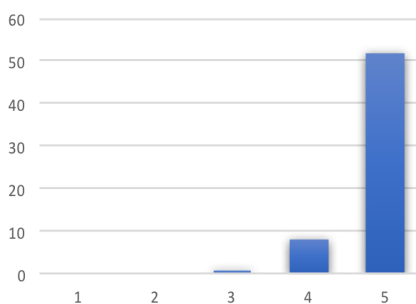
After meeting Professor DIDI



Did you enjoy the presentation?



Did you enjoy the activity?



Chantal Cook, CUTCO, Drafting Activity



Elise Griffiths, SolEpoxy, What is Manufacturing?



Morgan Hatfield, Dresser-Rand, Lean Mfg Activity



Girls in Manufacturing



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Above: Girls in Mfg/Eaton YMA participants, along with Girls in Mfg coaches, mentors, Professor DIDs, and Secretary Rosado

This summer, New York Secretary of State Rossana Rosado was touring throughout New York State, visiting organizations that have received grants through ARC and to see the impact of the funding on the community. One of the projects Secretary Rosado wished to visit was our Girls in Mfg Program through Dream It. Do It. Since a number of girls from the area clubs were participating in the Eaton YMA, it was a perfect opportunity to visit and see the results first hand. The girls appreciated the visit, enjoyed her stories, and realized even more possibilities for their future. What a wonderful visit!

Upcoming Events

- Mfg Day/Mfg Month
October, 12 2018 &
October/November 2018
*Tours of area manufacturers
- DIDI 500
*Saturday, November 3
*St. Bonaventure University
*Rubber band powered car race – Start your motors!
- Professor DIDI Club visits
- Eaton YMA
*Young Manufacturers Academy,
February 18-22, 2019



Secretary Rosado joins in with the girls, creating a file folder circuit.



Secretary Rosado's roundtable discussion with Girls in Mfg Club members, coaches, mentors, and members of the community.



Electronics played a big part in this year's Eaton YMA. The girls created a File Folder Circuit, worked with Snap Circuits and designed and created a Scribble Bot. Makey Makey, an electronic invention tool that consists of a circuit board, alligator clips and a USB cable, was a hit! The students then connect to a website and are able to program games, music, and unique inventions.



Shannon Albert, CRCS Girls in Mfg Club Champion, was one of the teachers for the Eaton YMA. Many of the CRCS club members were able to attend the YMA as well as the visit by the Secretary of State. The Makey Makey kits were so successful that Cuba-Rushford and Olean clubs plan to introduce the kits into the curriculum this fall.



Each day began with a team-building activity, to promote collaboration, communication, and team-work. Also, the girls were able to observe what they learned about circuitry and wiring during their visit to **Eaton CPSD**. They also took a trip to CUTCO to learn more about robotics.



Parents and family members were invited to the Eaton YMA on the last day, to see what their young manufacturers created and learned during the week. The girls were given some public speaking and presentation tips prior to the event by Professor DIDI (Halley Kottwitz) and had a terrific time presenting their final product and interacting with family members.

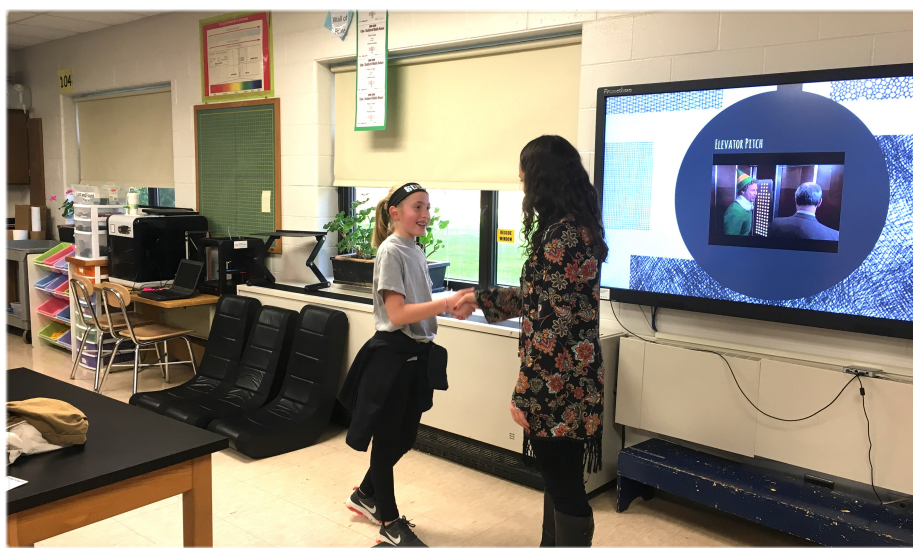
THANK YOU TO THE EATON YOUNG MANUFACTURERS TEAM, SUMMER 2018



Girls in Manufacturing



Funded by a grant through the Appalachian Regional Commission



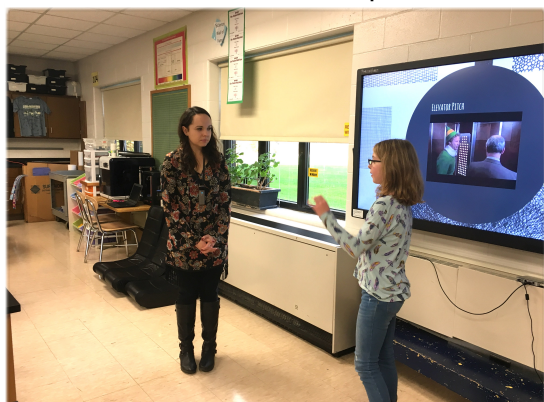
Above: Professor DIDI, Halley Kottwitz of YEA, is helping the CRCS Girls in Mfg Club members refine the simple handshake during a workshop about Presentation Skills.

Upcoming Events

- DIDI 500
 - Saturday, November 3
 - St. Bonaventure University
 - Rubber band powered car race
- Professor DIDI Club visits
- Eaton YMA
 - Young Manufacturers Academy
 - *February 18-22, 2019
- Girls in Mfg Summit
 - March 2019
- Women in Mfg Event
 - March 2019

How many of you are scared of public speaking or even talking with new people? This is the question Professor DIDI, Halley Kottwitz of the Young Entrepreneurs Academy, has been asking the Girls in Manufacturing Clubs. Public Speaking is something that Halley has struggled with her entire life. She wants the girls to know that it is okay to be nervous and that there are ways to work through that anxiety because let's face it, we have important things to say! Tips include mental exercises like pretending the audience members are very familiar to you to more tangible tips like voice speed and tonality. The presentation culminates with the girls practicing an elevator pitch where they try to persuade the class to participate in their favorite hobby.

Three-minute elevator pitch



Cuba-Rushford Girls in Mfg Club members.





Professor DIDI is back!!

Elise Griffiths, Chemical Engineer and Development Manager at SolEpoxy, has returned with a new message for the Girls in Mfg Clubs.

Confidence!

During Professor DIDI's presentation, Elise created a few fun exercises to improve the girls' confidence and ability to express their opinions. Girls were asked tell two truths and one fib. They quickly found out how much easier it is to tell the truth and that we simply can't know the answer to every question! The girls also learned a few tricks for dealing with nerves, speaking to adults, presentation skills, and most important....

There is no such thing as a wrong opinion!

Club members were then asked to think of three things they would like to change at their school and three things they find great at their school. After some deliberation, they were asked to tell their superintendent/principal - this was supposed to make them nervous but it didn't work! It just showed how our area administrators are most accessible, kind, and compassionate!! We are very fortunate!!



Professor DIDI at the Portville Envisioneering Center



Principal Laurie Cuddy hears girls' suggestions.



Hinsdale Girls in Mfg Club members

Women in Manufacturing

Morgan Hatfield graduated from Texas A&M University with a B.S. in Mechanical Engineering. She is now a Manufacturing Engineering Supervisor at Dresser-Rand/Siemens, in a management rotational program. Some of her hobbies include running, hiking, Netflix, and hanging out with friends. Morgan has also given presentations and helped at the DIDI 500, Mfg Day, and the Girls in Mfg Summit. As Professor DIDI, Morgan has visited our Girls in Mfg Clubs, teaching the girls about Lean Manufacturing, a method used not only in the Olean Dresser-Rand plant but in many other companies here and around the world!



Girls in Manufacturing



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Above: Shannon Albert and Christine Otto join their club members at the...

DIDI 500

Many members of the Girls in Mfg Clubs participated in this year's DIDI 500 - thirty, to be exact! The girls were accompanied by their club coaches, parents, and teachers from each school. The girls' teams competed with over 200 participants this year and the top two winners of the Middle School league were... from the Girls in Mfg Clubs!! Thank you to everyone involved!

1st Place: Cuba-Rushford and Olean CRCS Girls



2nd Place: Portville PCS Girls Rock!



Upcoming Events

- Professor DIDI Club visits
- Eaton Young Manufacturers Academy
*February 18-22, 2019
 - MTI@JCC
 - Workforce Readiness
- Girls in Mfg Day
 - March 30, 2019
 - MTI@JCC
 - Workforce Readiness
- Women in Mfg Event
 - March 2019
- Mfg & STEM Fair
 - May 10th, 2019
 - Portville High School
- Eaton Summer YMA
 - July 8 - 11, 2019
 - MTI@JCC
 - Workforce Readiness

DIDI 500

Over 200 middle school, high school, and college students along with engineers, professors, volunteers, and parents participated in this year's DIDI 500 on Saturday, November 3, 2018.

The DIDI 500 is in its seventh year at St. Bonaventure University and has been made a Best Practice by the Manufacturing Institute in DC. It is a rubber band-powered car race, organized and implemented by the SBU ENACTUS club and Dream It. Do It. WNY.

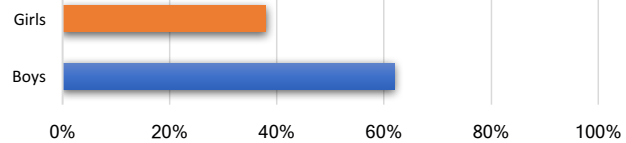
Design It.! Build It.! Test It.! Race It.! Sell It.!

The number of girls participating has grown over the past few years, due to the involvement of Girls in Mfg Clubs, Girl Scouts and mixed teams.

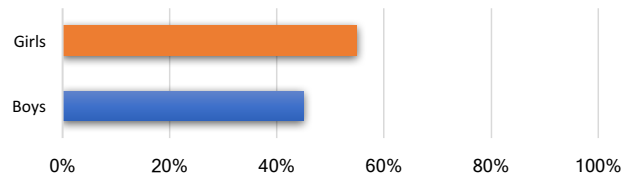
We hope to continue involving the Girls in Mfg Clubs – maybe they will come up with a new twist for next year!

We had a great group of engineers, technicians, and scientists mentor the students at this year's DIDI 500. Thank you to Dresser-Rand, SolEpoxy, NES, Cutco, and Eaton for sending your best!

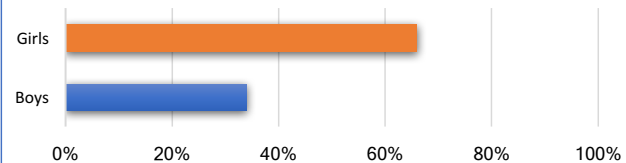
DIDI 500 2016



DIDI 500 2017



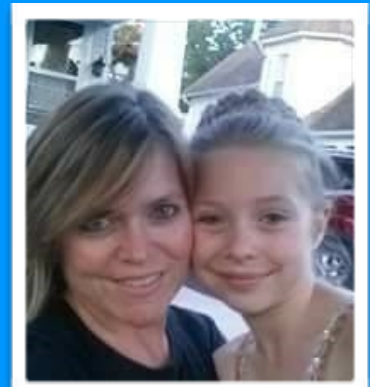
DIDI 500 2018



Women in Manufacturing

Christine Otto graduated from Empire State College with a BS in Computer Technology and Business. She is now a Client Support Technician at Cutco Cutlery in Olean, NY where she works in all aspects of technology support. Her hobbies include running, walking, and biking, as well as volunteering for local charitable events in her community. She loves supporting her daughter Madison (pictured) in all areas of sports and activities - helping to encourage her and other girls to be the best they can be and empower them that they can do ANYTHING when they put their minds to it! Currently Christine is Board Secretary for the the Olean Girls Softball and is leading the Girls in Mfg Club at Portville CSD. Most of her ambition and drive comes from the girls' energy and passion for learning and life.

Truly it is inspiring to be surrounded by such amazing girls! Christine Otto



Girls in Manufacturing



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Above: OIMS Girls in Mfg Club walked through a snowstorm and enjoyed a visit to Boundless Connections as the clubs embark on a few...

Field Trips!!

Club meetings are great! The girls work on projects, learn new skills, collaborate with each other to come up with creative solutions - all is good! But it is also valuable to see the application of STEM skills in the real workplace and/or have speakers come in to work with the group. We are beginning a series of tours and presentations that will continue into the new year. We'll keep you posted!

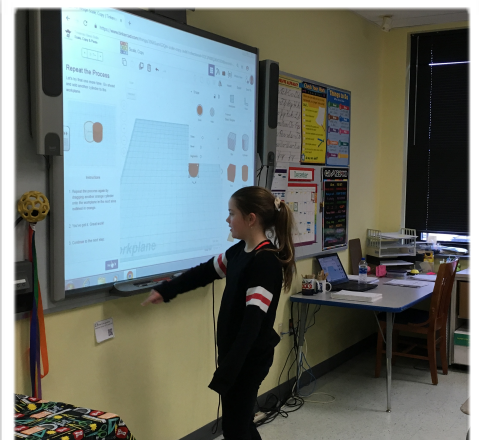
Upcoming Events

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Olean girls watch their creation print at Boundless Connections.



TinkerCad Presentation at **Hinsdale**





The **Portville** Girls in Mfg Club enjoyed a trip to 360 RIZE, learning about virtual reality, augmented reality, 360 imaging, and animation. This trip gave them some ideas for their upcoming project in 3D printing. Looking forward to seeing their works of art!



Cuba-Rushford girls gathered to listen to a presentation by Professor DIDI about confidence. They all recognized Professor DIDI (Elise Griffiths) from her previous visits and are looking forward to trips after the holidays - to SolEpoxy and Eaton!

This month, the CRCS club will be coding their robots to go bowling. Yes, you heard that correctly! Updates to come!!

Women in Manufacturing

Jennifer Noll is the Human Resources Manager at Eaton's Power Systems Division's Olean, NY location. Jennifer joined Eaton in May 2011 as a Human Resources Generalist. Prior to joining Eaton, she was a Safety Specialist at Master Lock Company and held roles in both HR and safety for Ace World Wide Moving & Storage Company. Jennifer holds a BS in Occupational Safety from the University of Wisconsin - Whitewater and an MBA from Cardinal Stritch University in Milwaukee, WI. Jennifer has been involved in many of our Dream It. Do It. events, organizing tours, mentoring interns, presenting at events, and supporting our DIDI mission.

"I would like to be known as an intelligent woman, a courageous woman, a loving woman, a woman who teaches by being." ~ Maya Angelou



Girls in Manufacturing

Funded by a grant through the Appalachian Regional Commission



Above: Allegany-Limestone Girls in Mfg club members get right to work with their new Makey Makey kits. The girls will be creating music, inventing new games... the sky's the limit!!

The Allegany-Limestone Girls in Mfg Club developed a unique approach this semester with five teachers sharing the responsibility of the after school club. Mrs. Hendrix is overseeing the club; Ms. Cheladyn is working on a unit with Lego Robotics; Ms. Goodman is coding and inventing with the Makey Makey kits; Ms. Straub is launching a unit on Rockets; Ms. Quinn will be introducing the club to engineering. This is a great approach that we may try with other clubs. Thank you to the students and teachers of Allegany-Limestone!! After working on the robotics unit with Mrs. Cheladyn, a few girls wish to continue working on their robots before and after school. That's dedication!!

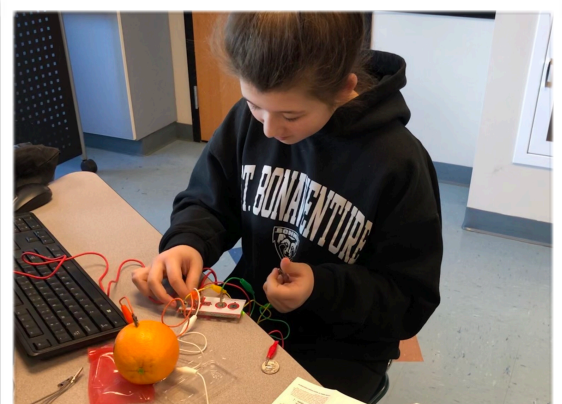
Allegany-Limestone girls with Mrs. Cheladyn and their robots!

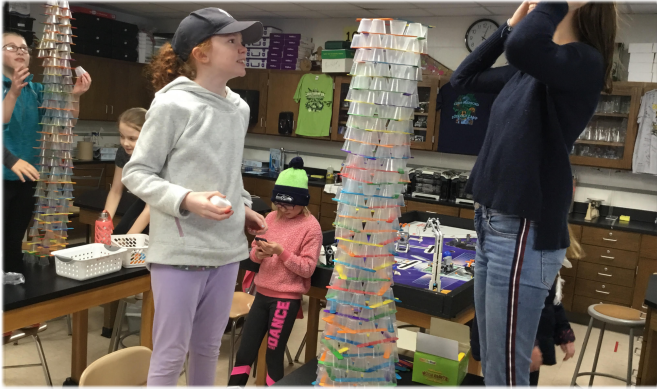


Upcoming Events

- Eaton Young Manufacturers Academy
 - February 18-22
 - MTI @ JCC
- Girls in Mfg Day
 - March 2019
- Celebrating Women in Mfg
 - April 17
 - Cutco
- Mfg & STEM Fair
 - May 10
 - Portville High School
- Eaton Summer Young Manufacturers Academy
 - July 8 - 11

Makey Makey making music.

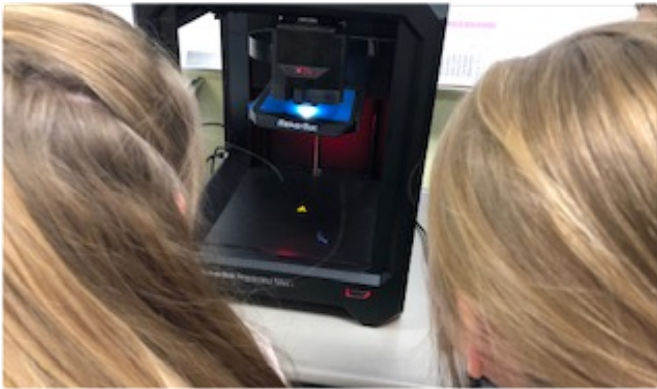


Cuba-Rushford Central School

The Cuba-Rushford club has been busy since the beginning of the year, creating rubber band cars, working alternative energy models, 3D printing, robotics, and constructing the tallest tower!!

Olean Intermediate Middle School

Olean club members have been working on a 3D project this semester. The girls have created a schedule, list of responsibilities, and are working together before and after school. Come to the Mfg & STEM Fair on May 10 to see what they have been creating!

Hinsdale Central School

The Hinsdale Girls in Mfg Club engaged in a few workshops about 3D printing before the Christmas break. Well, now they are putting that knowledge to work. The girls are realizing that the 3D printing process takes time, knowledge, practice, talent, patience.... and the results are well worth the wait!!

Portville Central School

Portville Girls in Mfg Club has been taking advantage of the Envisioneering Center at Portville High School. After mastering the 3D printers, club members are now working on the laser printers and mini soapbox cars with club coaches Christine Otto and David Suain.

Women in Manufacturing

Mary Deegan-Collins, Production Manager at SolEpoxy, Inc., is on the Executive board of Dream It. Do It. WNY. Other positions include process engineer, business process manager, and site coordinator for business system implementation. Mary attended Lafayette College for a BS in Chemical Engineering and earned an MBA from St. Bonaventure University.



Girls in Manufacturing



Funded by a grant through the Appalachian Regional Commission

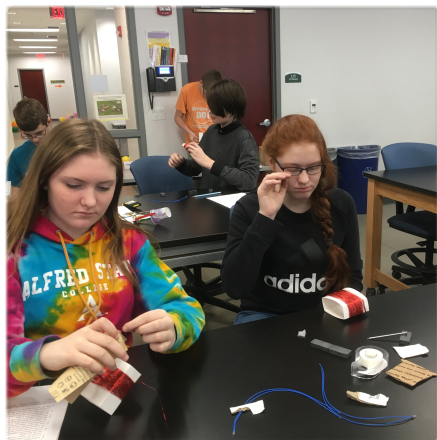


Upcoming Events

- Professor DIDI Club visits
- Girls in Mfg Day
 - March 30, 2019
- Celebrating Women in Mfg
 - April 17
 - Cutco
- Mfg & STEM Fair
 - May 10
 - Portville High School
- Eaton Summer Young Manufacturers Academy
 - July 8 - 11

Above: Girls in Mfg Clubs from Olean, Cuba-Rushford, Allegany-Limestone, Portville, and Hinsdale enjoyed a week with fellow club members.

This year's Eaton Young Manufacturers Academy and Winter at the Races was a great success! Forty students participated, which included 18 girls from our Girls in Mfg Clubs (and some possible new members!) The 2019 YMA included STEAM activities, building a wind turbine, constructing a generator, creating group badges with electric thread, making a potato battery, assembling a race car - all while working together as a team! The Young Manufacturers learned about safety in the workplace, iterative design, friction, the 5 whys, trouble shooting, circuitry, the engineering design process, energy, persistence, teamwork, and making new friends. Thank you to all of the area manufacturers, teachers, volunteers, Jamestown Community College, and Eaton for a terrific week!





And the winner is..... Winter Warriors!!



Off to the races!! Thank you to JCC and Phil Farris of SolExo.



Teams were mixed this year, with members from Olean, Hinsdale, Allegany, Portville, and CRCS.

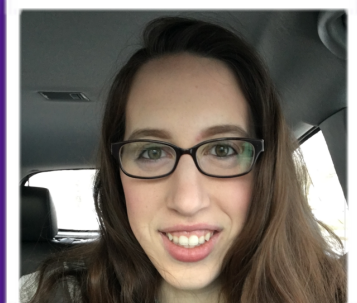


Parents and Young Manufacturers watch videos of the marketing pitches to sell their cars.



Women in Manufacturing

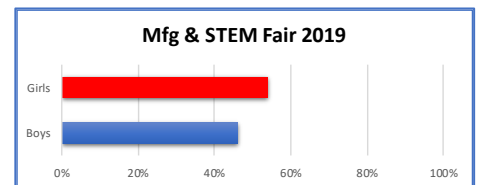
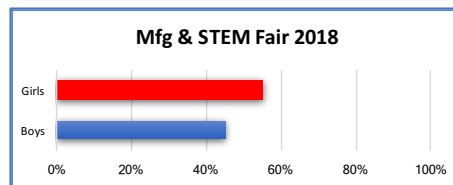
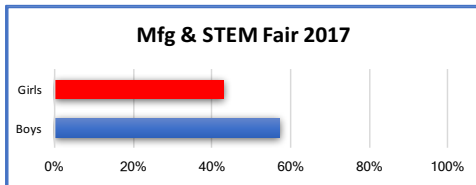
Stephanie Pikulski has a bachelor's degree in chemistry from St Bonaventure University and now works as the Quality Assurance Supervisor at ELANTAS PDG. Her career began when she did a summer internship at ELANTAS that was sponsored by Dream It Do It, and she has been involved in DIDI activities ever since (including making ice cream at the Girls in Manufacturing Summit – yum!). Stephanie was recently awarded the 2018 Rookie of the Year Award by Olean Area Young Professionals. When she is not at work, she is playing with her five rescue animals – three cats and two dogs!



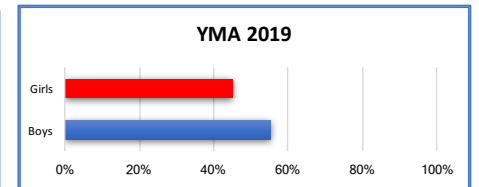
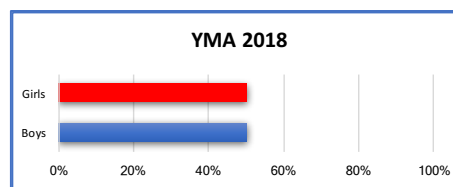
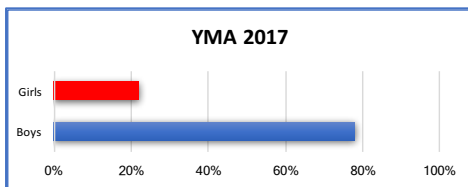


Since receiving the ARC grant, ***Making it Real: Girls in Manufacturing***, Dream It. Do It. WNY in Cattaraugus County has seen an increase in participation by girls in four of DIDI's major events: Mfg & STEM Fair, Eaton YMA, Summer Eaton YMA, and the DIDI 500.

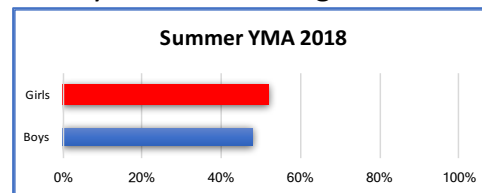
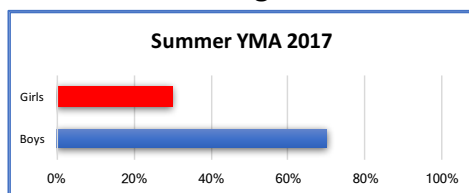
Manufacturing & STEM Fair



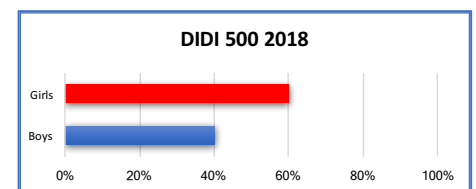
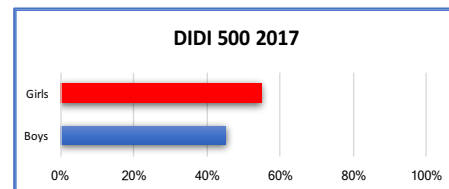
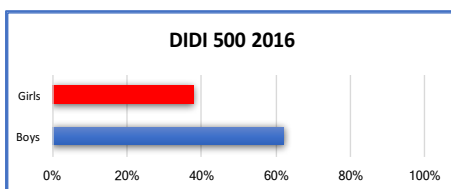
Eaton Young Manufacturers Academy



Eaton Young Manufacturers Academy – Summer Program



DIDI 500



Thank you to the following manufacturers and educational institutions for their support of our Girls in Mfg Programs:

Manufacturers Association of the Southern Tier, Appalachian Regional Commission, CUTCO, SolEpoxy, Napoleon Engineering Services, Dresser-Rand, Eaton, Mazza Mechanical Services, Pierce Steel, Keystone Tool & Die, ELANTAS PDG, Total Piping Solutions, Scott Rotary Seals, Jamestown Community College, St. Bonaventure University, University of Pittsburgh at Bradford, Alfred State College, CA-BOCES, and Cattaraugus and Allegany county school districts.

Any questions, please contact Evelyn Sabina, Program Coordinator, Dream It. Do It. WNY esabina1@gmail.com