

CIA



Creativity in Action
Doing the impossible is now possible.





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2017-2018 Season Highlights

Committing

- Enlisted the support of **48 different sponsors**
- Recruited **17 new students**
- **100%** of our students on our team plan on attending college with **86%** majoring in engineering or science
- Raised over **\$5000** for charities like March for Babies, Africa 6000 International, and American Cancer Society

Innovating

- Performed our twenty-third original murder mystery dinner theater raising a total of **\$16,034**
- Led or participated in **50 community events** ranging from charity walks to FLL mentoring to city festivals
- Initiated the creation of **10 new FLL Jr teams**
- Launched **six-part science seminar** inviting students from all high schools in Erie County

Assisting

- Mentored **6 FLL teams**
- Provided mystery dinner fundraising scripts to other FRC teams as far away as **Australia**
- Held weekly mentoring sessions for **70 FRC teams** (in 13 states, 2 provinces, and 3 countries!)

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Creativity In Action



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Executive Summary

Mission Statement

Our team's mission is to help our students and community recognize the impact that science, technology, mathematics and engineering can have on everyone's future; to help our students nurture a passion for what they do, to practice discipline in their lives, to develop their skills as leaders, and to recognize responsibility to our community.

Location: Erie, Pennsylvania

Rookie season: 1999

Founders:

Joyce Gerry: Fundraising, Trip Planning, Purchasing & Inventory

Mike Hayes: Sponsorships, Mentoring & FLL, Media & Communications

Brad Jones: Design and Manufacturing

Cathy Park (retired, 2015): formerly Trip Planning and Spirit

Team members: 28 students, 10 mentors, 4 teachers

Sponsors: GE Transportation; Erie's Public Schools; Siebenbuerger Club; Larson Texts, Inc; Nunzi's Place; Gannon University; Jr's Last Laugh Comedy Club & Restaurant; Industrial Sales & Mfg., Inc; Plastikos, Inc.; Superior Toyota; Linda and Jim Fleming; Lamjen, Inc.; Dailey Supply, Inc.; HBKS Wealth Advisors LLC; General Partitions; LECOM; Custom Engineering Co.; Penn State Behrend; Plastics Services Network; Commercial Turf Fertilization; The Warren Company; Erie Strayer; The Kim Family; Joel & Lesley Berdine; Erie Sport Store; Gohrs Printing Service, Inc.; Joyce Gerry; Sheetz, Inc.; BKD; Krauza Family Chiropractic; Professional Communications Messaging Service, Inc.; Bianchi Honda; Erie Eye Clinic; Brian Celidonia; Roseto-Suter Overhead Doors; Dave & Julie Cummings; Gem City Gun Club; Mark & Crystal Cecchetti; FastSigns; Ric and Cathy Resinger; Mike Hayes; Country Fair - Harborcreek; Waldameer; Erie Seawolves; Jeff Kline; East Erie Moose Lodge Family Center; Erie Playhouse.

Sponsor Relationships:

Our two primary sponsors (GE and the Erie School District) have been with us since our rookie season in 1999, and 29 of our 48 sponsors are returning sponsors. Sponsorships account for just over 60% of the money raised by our team annually.

Team activities: March for Babies; Jr's Comedy Night Fundraiser; Awesome Dinosaur Robotics Academy; FIRST at Erie School Board; Iroquois Recruiting Demo; Seawolves; GE Girls STEM Event at Penn State; WOW Championship; Waldameer Science Day; Water for Africa; Edison Cleanup; Erie High Cleanup; Relay for Life; Golf Tournament - Green Meadows; Sponsors Reception; Celebrate Erie; NPCA Club Day; Steel City Showdown; MVRC; Manufacturing Day at the Bayfront Convention Center; NASA talk at NPCA; Pittsburgh Maker Faire; FIRST at Iroquois School Board; Rah Cha Cha Ruckus; Erie Maker Faire; Shriner's Hospital; FIRST Symposium Webcast - Team 291; Girl Scouts; Murder Mystery Dinner Theater; Food Drive - Second Harvest Food Bank; Collegiate Academy Open House; Iroquois High School Demo; St. Luke's School Demo; Sharp FIRST Symposium; Safenet Christmas Party; Iroquois Elementary Demo; Penn State STEM Day; FLL Competition; GE Engineering Day.



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FIRST Description

The *FIRST* Robotics Competition is an exciting, multinational competition that teams professionals and young people to solve an engineering design problem in an intense and competitive way. The program is a life-changing, career-molding experience – and a lot of fun.

In 2018, the competition will reach roughly 90,000 high-school-aged young people on over three thousand teams in over one hundred district and regional events. Teams come from every US state as well as twenty-eight other countries including Australia, Brazil, Canada, Chile, China, Colombia, Croatia, Czech Republic, Dominican Republic, Ethiopia, France, Germany, India, Israel, Japan, Mexico, Netherlands, Norway, Paraguay, Poland, Singapore, Sweden, Switzerland, Taiwan, Turkey, and the United Kingdom. The competitions are high-tech spectator sporting events, the result of focused brainstorming, real-world teamwork, dedicated mentoring, project timelines, and immovable deadlines.

Colleges, universities, corporations, businesses, and individuals provide scholarships to student participants. Involved engineers experience again many of the reasons they chose engineering as a profession, and the companies they work for contribute to the community while they prepare and create their future workforce.

The competition shows students that the technological fields hold many opportunities and that the basic concepts of science, math, engineering, and invention are exciting and interesting. For more information, check the *FIRST* website at www.firstinspires.org or check our team's website at www.team291.com. Either way, you're in for a truly remarkable experience that's a one-of-a-kind "sport of the mind".



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Team History

CIA - Creativity In Action (Team #291) was started in 1999 by GE mentors who had mentored Team 63, The Red Barons, one year before. We actually began our history with the name “The Tenacious Technomotivators”. We changed this to CIA the next year since the original name had proven difficult to market and harder yet to chant. Although the team was founded by students from Central High School and Villa Maria Academy, it was later expanded to include students from Northwest Pennsylvania Collegiate Academy as well as several other area schools.

At first our team dressed in all black (what else would you expect of the CIA?), but we added our now iconic neon orange in 2006. We made the change to orange and black since it was a unique color scheme. Our win rate rose appreciably in the years immediately following that decision so we stuck with our eye-popping orange.

What started nineteen years ago as a relatively inexperienced group of engineers and students who didn't even know that scouting other teams was permitted, has grown into a cohesive and well-rounded team. We now have an effective organizational structure, lucrative fundraising efforts, computer-modeled designs, an orderly pit area, comprehensive scouting, and an impressive amount of community outreach. We hold teleconferences for other FRC teams and arrange for mentoring support for every one of the FLL and FLL Jr teams in our school district. We hold golf tournaments, host murder mystery dinner theaters, and give sponsorship presentations. In short, we do a little of everything.

Our graduation rate is 100%, and 86% of this year's team members intend to pursue careers in science or engineering. We are all partners in our team. **We describe the student-mentor relationship as a “bicycle built for two” with the students in front – both groups pedal and, although the mentors offer guidance, the students are the ones who are steering.**



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Team Goals and Measures

FIRST Goals

Goal: To inspire student members to pursue engineering or technical careers

Measurement: Percentage of students who pursue an engineering or technical major in college (target: 75%+) ●

Goal: To expand the reach of *FIRST* within our community and beyond

Measurement: The number of new FRC/FTC/Int'l FLL teams started or mentored (target: 1 / yr) ●

Measurement: The % of FLL teams in our district that we mentor (target: 100%) ●

Team Goals

Goal: To sustain adequate support for our team to ensure its continued success

Measurement: Percentage of returning non-graduating students (target: 75%+) ●

Measurement: Percentage of returning mentors (target: 75%+) ●

Measurement: Percentage of returning sponsorship dollars (target: 75%+) ●

Community Goals

Goal: To raise funds for local charities as a way of giving back to our community

Measurement: Dollars raised for charity per year (target: \$2000+) ●

Goal: To continue to heighten the community's awareness of *FIRST* programs

Measurement: Number of public exhibits per year (target: 20+) ●

Technical and Performance Goals

Goal: To design and build a competitive robot every year

Measurement: Percentile rank in the competitions we enter (target: top quartile or better) ●

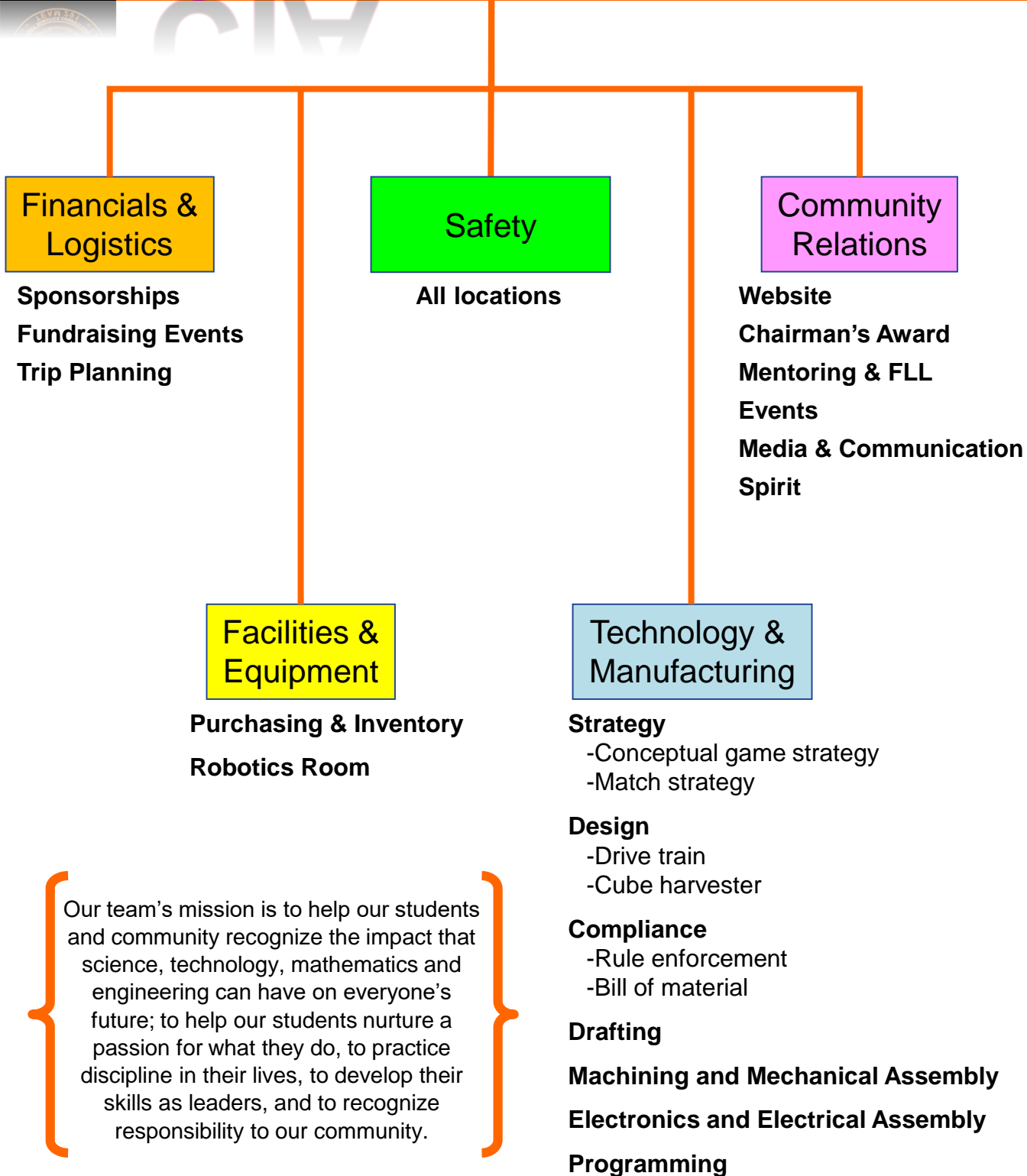
Goal: To be an exemplary model for *FIRST* teams to emulate

Measurement: Trophies won by our team each year (target: 1+) ●



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Organization Chart





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Organization Matrix



O = Group leader / co-leader

NAME	ROLE	CLASS OF	Financials & Logistics					Facilities & Equipment			Safety	Technology & Manufacturing						Community Relations				
			Sponsorships	Fundraising Events	Trip Planning	Purchasing / Inventory	Robotics Room	Safety	Project Management	Overall Game Strategy	Design	Drafting & Animation	Machining & Mechanical Assembly	Electronics & Electrical Assembly	Compliance	Programming	Website	Chairmans Award	Mentoring and FLL	Events	Media & Communications	Spirit
Rob Armbruster	Mentor	N/A																				
Mark Cecchetti	Mentor	N/A																				
Brian Celidonia	Mentor	N/A																				
John Curtin	Alumni Mentor	2008																				
Ramesh Edara	Mentor	N/A																				
James Fleming	Teacher	N/A																				
Josh Frischolz	Teacher	N/A																				
Joyce Gerry	Mentor	N/A																				
Mike Hayes	Mentor	N/A																				
Brad Jones	Mentor	N/A																				
Phillip Powell	Teacher	N/A																				
Peter Reed	Teacher	N/A																				
Joe Tomasiak	Mentor	N/A																				
Marina Young	Alumni Mentor	2016																				
Logan Abersold	Student	2018																				
Naqaa Al-dhumani	Student	2019																				
Darryl Allen	Student	2021																				
Kyle Alonge	Student	2020																				
Carlos Andino	Student	2021																				
Caleb Balzer	Student	2021																				
Nolan Bethel	Student	2021																				
Likhith Borela	Student	2020																				
Emma Britton	Student	2019																				
Jonah Britton	Student	2019																				
Kayley Brown	Student	2019																				
Samaya Brown	Student	2021																				
Julia Cecchetti	Student	2018																				
Olivia Chaney	Student	2018																				
Artavione Dovishaw	Student	2021																				
Alexis Dunn	Student	2021																				
Srinivas Edara	Student	2022																				
Erin Fleming	Student	2019																				
Will Frost	Student	2020																				
Jayden Gaydosh	Student	2021																				
Spencer Hartland	Student	2019																				
Christopher Hess	Student	2020																				
Elizabeth Huang	Student	2019																				
Madeleine Karickhoff	Student	2021																				
David Kim	Student	2019																				
Leo Nicolussi	Student	2019																				
Aaron Nolen	Student	2021																				
Noah Pelletier	Student	2018																				



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Sustainability

Recruiting:

Central to our efforts to ensure a reliable influx of new students is our initiation and support of *FIRST* LEGO League teams in our district. In the last several years we have been instrumental in supporting FLL teams throughout our district. This year we were also responsible for getting FLL Jr started in our school district. Additionally, we participate in open houses and city festivals to ensure that as many students as possible get the chance to have a hands-on experience with technology. To nobody's surprise, these demonstrations can do as much to recruit sponsors as they do to recruit students.

Skill Sets:

Year after year the student leaders and mentors on our team work with the younger students to bring them up to speed with all the skills needed to ensure the team's continued success. Classes are held to explain everything from computerized drafting to torque calculations. Add to that the fact that three of our mentors are actually alumni who have returned to serve as mentors to the team on which they used to be students and you have the makings of a solid team.

Mentors:

As true as it is that our team has some great students, it is equally true that our mentors are the glue that hold the team together year after year. We benefited from the steady guidance of four teachers and eight mentors this year – two of whom have been with us since the team's inception back in 1999. Collectively, our mentors have over a hundred years of *FIRST* experience – and that's an incredible asset.

Sponsors:

When first recruited, sponsors are sent thank you letters along with certificates of recognition. Our relationship with our sponsors is strengthened with bimonthly newsletters, an annual sponsors reception, and invitations to the kick-off our competitions. Depending on the size of the donation, sponsors get publicity ranging from appearing on our team shirts to having their logo displayed on our robot. We aspire to make our robot look like something from a NASCAR event. Our breadth of support is now so diverse that even if we were to lose our two biggest sponsors, we would still be able to be an active participant in *FIRST*.



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Student Contract



CIA Team 291



Student Contract – 2017-2018 Season

As a student member of Team 291 I understand that my membership is contingent upon adhering to the conditions explained below.

Gracious Professionalism

I understand that the primary principle of Team 291 is Gracious Professionalism, the same as the primary principle of FIRST. I will treat all other people and property with respect and will hold my teammates accountable to that same standard at all times.

E-Mail

I will check for new mail from the team regularly (at least twice a week). It is my responsibility to make sure I am receiving team e-mails and to keep the team informed about any changes in my e-mail address. I understand that I will be held accountable to the content of e-mails that I am sent. I am aware that I should receive frequent e-mails from cia@team291.org, often two or more per week.

Traveling with the Team

In order to attend team trips (regional competitions, championship [national] competitions, etc.), I understand I must adhere to the following terms and conditions...

1. **Grades:** ALL of my grades must in accordance with my schools guidelines for participation and ALL of my teachers must give me signed permission before I am allowed to go to team competitions. Additionally, I must maintain a minimum grade of 70% in all classes

2. **Participation:**

To go to one regional competition, I must participate in 30% of all robotics meetings and functions.
To go to two regional competitions, I must participate in 45% of all robotics meetings and functions.
To go on additional team-funded trips, I must have participated in 60% of all robotics meetings and functions.
(Percentages will be calculated on a full year basis for returning members, and from October 1 forward for new members. Participation by new members prior to October 1 will be counted as "extra credit".)
Participation also includes a set of mandatory but flexible activities, which may include (but are not limited to):

Site improvement
Community Service

Promotions
Fundraising

Tutoring/mentoring
Special Projects

In cases where students are present but are disengaged for a significant portion of the meeting/function, teachers/mentors reserve the right to withhold participation credit.

3. **Fund-Raising:** Our team will have several fundraising opportunities. To go to one regional competition, I must fundraise at least \$200. To go to two regional competitions, I must fundraise at least \$400. To go on additional team-funded trips, I must fundraise at least \$800. (Those students who are in their first year on the team will have targets of \$125, \$250, and \$500 respectively.) 100% of any cash sponsorships received prior to the kick-off (generally the first Saturday after January 2nd) will be credited to students who recruit those funds. After the kickoff, 50% of any cash sponsorships will be credited to students who recruit those funds. In-kind sponsorships, while valuable, are not credited to the recruiters of those funds since those sponsorships do not result in funds that can be spent for travel expenses, although such donations will be taken into consideration when reviewing those students who have not reached their fundraising target. Those who cannot or do not want to participate in fundraisers may compensate for whatever amount they are short of a given goal by direct contributions from their own funds.

Student Name (print legibly) _____

Student Signature _____ Date _____

Parent/Guardian Name (print legibly) _____

Parent/Guardian Signature _____ Date _____



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Team Budget

REQUIRED INPUTS ARE IN YELLOW, DERIVED / CALCULATED FIGURES ARE IN GRAY

2017-2018

TOTAL COST		31002	TOTAL REVENUE		40643
REGISTRATION FEES					
Number of regionals		2	GE FEE GRANT		4000
Attending nationals?		N	ERIE SCHOOL DISTRICT FEE GRANT		5000
ADDITIONAL MATERIALS		5000	GE MATERIAL GRANT		2000
INCIDENTALS		500	FUNDRAISERS		
COMMUNITY OUTREACH		3000	Murder Mystery Dinner Theater		9671
REGIONAL 1			Drivers of Technology Golf Tournament		2342 (+ 5675 in sponsorships*)
Registration Fee		5000	Jr's Comedy Club		1355
Number of male students	15	5000	SPONSORSHIPS		
Number of female students	8			Level	
Number of teachers	3		GE Erie Operations*	3000	Gold
Number of rooms needed	9		Siebenbuegger Club	3000	Gold
Number of hotel nights	3		Larson Texts, Inc	1000	Gold
Nightly room rate	140		Gannon University	1000	Gold
Total lodging	3780	3780	Plastics Services Network	1000	Gold
Transportation (bus, etc.)	0	0	Jr's Last Laugh Comedy Club & Restaurant	0	Gold - see above
Travel snacks	100		Industrial Sales & Mfg., Inc*	100	Gold in kind
Travel food (lunches and dinners)	1300		Lake Erie Events	0	Gold in kind
Total food	1400	1400	Nunzi's Place*	0	Gold in kind
REGIONAL 2 (if appl)			Superior Toyota	500	Silver
Registration Fee		4000	Linda and Jim Fleming	500	Silver
Number of male students	15		LECOM	500	Silver
Number of female students	9		Plastikos, Inc.	500	Silver
Number of teachers	3		Custom Engineering Co.	650	Silver
Number of rooms needed	10		Lamjen, Inc.	250	Silver
Number of hotel nights	2		Penn State Behrend	250	Silver
Nightly room rate	150		Dailey Supply, Inc.	250	Silver
Total lodging	3000	3000	General Partitions	250	Silver
Transportation (bus, etc.)	3870	3870	Erie Strayer	250	Silver
Travel snacks	100		HBKS Wealth Advisors LLC	250	Silver
Travel food (lunches and dinners)	1350		Commercial Turf Fertilization*	250	Silver
Total food	1450	1450	The Warren Company	0	Silver in kind
CHAMPIONSHIP			Erie Sport Store*	0	Silver in kind
Registration Fee		0	Gohrs Printing Service, Inc.	0	Silver in kind
Number of male students			Sheetz, Inc.	250	Silver
Number of female students			Jeff Kline*	200	Bronze
Number of teachers			The Kim Family*	200	Bronze
Number of rooms needed	0		Joel & Lesley Berdine*	160	Bronze
Number of hotel nights			Professional Communications Messaging Service, Inc.*	150	Bronze
Nightly room rate			BKD	100	Bronze
Total lodging	0	0	Krauza Family Chiropractic*	100	Bronze
Transportation (bus, etc.)		0	Bianchi Honda*	100	Bronze
Travel snacks			Erie Eye Clinic*	100	Bronze
Team money allocated for meals (per student)			Roseto-Suter Overhead Doors*	100	Bronze
Team money allocated for meals (total)	0	0	Dave & Julie Cummings*	100	Bronze
Total food	0	0	The Celidonias*	100	Bronze
			Joyce Gerry*	100	Bronze
			Gem City Gun Club*	100	Bronze
			Mark & Crystal Cecchetti*	100	Bronze
			Ric and Cathy Resinger*	120	Bronze
			East Erie Moose Lodge Family Center*	100	Bronze
			Mike Hayes	100	Bronze
			FastSigns*	0	Bronze in kind
			Country Fair - Harborcreek*	0	Bronze in kind
			Waldameer	0	Bronze in kind
			Erie Seawolves	0	Bronze in kind
			Erie Playhouse	0	Bronze in kind
			14 various donors (<\$100 each)	495	Donors



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Team Sponsors

Platinum Level



Gold Level



Lake Erie Events



GANNON UNIVERSITY
College of Engineering and Business



PLASTICS SERVICES NETWORK



Silver Level



CUSTOM ENGINEERING CO.



Dailey Supply, Inc.



Since 1913



Your Hometown Sports Store



Bronze Level

Joel & Lesley Berdine

FAST SIGNS



The Kim Family

JEFF KLINE



Mark & Crystal Cecchetti

The Cummings



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Golf tournament

12th Annual "Drivers of Technology"

Golf Tournament



Green Meadows Golf Course

North East, PA (just off Route 20)

Fri. July 14, 2017 - 12:00 Shotgun Start

(Lunch & registration start at 11:00 AM)

Cash Prizes for 1st, 2nd, and 3rd place teams

Golf Contests & Other Prizes

\$360 per 4-person team

Format: Scramble (USGA rules apply)

Food & drink all day. Dinner immediately after golf.



There's a limited number of spots so reserve yours today!

Contact Joyce Gerry (814-969-2616, Joyce.Gerry@ge.com) or

Jeff Kline (814-431-9512)



Deadline for reservations and payment: June 30th

Make checks payable to "FIRST Robotics Team 291"

All proceeds benefit the Erie School District's *FIRST* Robotics Team, CIA: Creativity in Action, Team 291

96 Golfers, 18 Holes, 1 Purpose

This year we hosted our twelfth annual "Drivers of Technology" golf tournament. It's our second biggest fundraiser and although it made an impressive \$8,017, the bigger benefit was getting the *FIRST* message out to lots of people in the community. Everyone had a good time golfing and getting to learn a little more about *FIRST* and its programs. Overall, the golfing may have been sub-par, but the event was truly "first" class.



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Mystery Dinner

(Written and Directed by a FIRST Team 291 Mentor)

AN AMAZING ATTACK OF AMNESIA



Performances = 4

Guests = 510

Profit = \$16,034

Killers caught = 1

Last fall we produced our **twenty-third original murder mystery dinner theater** and brought in \$16,034 including almost \$1000 for the Second Harvest Food Bank. The historical sum for these productions to over \$220,000 for our area FRC teams. During the four frenetic performances of “**An Amazing Attack of Amnesia**” our guests were served a delicious dinner while they tried to deduce who had killed hypnotist Andy Eiserdreupin. After the mystery was solved and the culprit successfully arrested, our guests were given a **brief presentation about FIRST** and were told how they could get involved.



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Mystery Dinner

(Written and Directed by a FIRST Team 291 Mentor)

Over the years our murder mystery dinner theaters

have raised a total of over

\$220,000

for all four Erie area FRC teams.

Sabotage at the Simpson
A Felony in the FIRST Degree

Gracious professor...
FIRST teams, but...
behaving disgracefully...
was switched off, someone fatally smashed it.
Can your audience find the nut who did it?
Does the golly party have a secret helper?
Figure it out before...

The Folly of the Felony
at the Fiasco

...love the...
tragic...
insight. Set in the West End of...
this mystery calls everyone's "character" into...
Can your audience "cast the role" of the murderer...
correctly? Tell them in...
close to... it out?

Parties, Platforms, and Pistols
The President's...
...can be murder...

...couldn't top itself...
murder...
Presidential candidate...
Preston Starling...
...say, the campaign...
has been upset too...
causally by this tragic...
development. Can your audience cast the proper...
voice and send the killer to the gallows?
The United States is depending on them.

The Grave Goes on
of the Garden Greenhouse

There's nothing...
about murder...

A Murder Mystery by Mike Hayes

The little community...
suffered a major...
lawn and garden...
was found shot...
he did not survive...
rather than growing...
find out who...

Revenge at Rocky Ridge
Reunion

A Murder Mystery by Mike Hayes

When the invitations for the Rocky Ridge 10th year...
they...
would be a "killer...
two alumni, U.S...
and...
long...
know...
will, were...
Take...
our...
work, and...
an...
police work...

The Mysterious News
WDOA

Somebody just got their final deadline...

...way to describe this story...
When Miami TV station WDOA ended its news...
broadcast last night, nobody (except of all WDOA's...
thought that the biggest news story the next day...
would be the murder of its station owner. While...
it's true that hard-as-nails Barb Dwyer didn't make...
it...
to the obituaries...
pencil and figure...
night. Get out...
your...
suspects, get...
the cops.

Very Very Very
Victory

Someone has just run out.

A Murder Mystery by Mike Hayes

Formerly a Las Vegas craps dealer, Roland Dyce...
invested wisely and rose through the ranks to...
actually become the owner of the newest casino...
in town - the Ali Baba. Unfortunately, Roland...
has rolled the dice for the last time. Can you...
figure out who dealt him the death card?

Murderous
Practice

Dr. Mel Azuma went from being...
A-OK to being OOA and he did it PDQ.

Can you diagnose what sick people did this?
Let us prescribe a good dose, healthy...
doses of laughter, and a booster...
shot of insightful deductive.

Make your appointment now.

Homicide
Hollywood

It was Lights, Camera, Murder

A Murder Mystery by Mike Hayes

The year is 1959, the place is Hollywood, and the...
crime is murder. The truth is there hasn't been...
shocking news like this since Truman beat Dewey...
It seems that Hollywood actress Ivana Rudderace...
was found this morning awash in the surf outside her...
beach house. The police aren't saying much but the...
scuttlebutt is that her death wasn't a simple accidental...
drowning. Can you play a role in catching the killer?



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Team Scholarship

CIA (College Impact Award) Scholarship

The CIA Scholarship will be presented annually to active student members of Team 291 who are graduating from high school and going on to some form of higher education who have met all the criteria listed below.

ACADEMICS	1st year on team	2nd year on team	3rd year on team	4th year on team
QPA must be at least 3.25 each quarter. (If any classes are weighted, QPA should be re-calculated based on an unweighted scale, 4.0 maximum.)	Required	Required	Required	Required
FINANCIAL				
Raise funds through at least two of the following four sources:	\$100 total minimum	\$500 total minimum	\$500 total minimum	\$500 total minimum
Jr's Comedy Night ticket profit	\$0 minimum	\$100 minimum	\$100 minimum	\$100 minimum
Golf Tournament golfer / hole sign profit	\$0 minimum	\$150 minimum	\$150 minimum	\$150 minimum
Mystery Dinner ticket profit	\$100 minimum	\$200 minimum	\$200 minimum	\$200 minimum
Sponsorship recruitment	N/A	Bronze or higher	Bronze or higher	Bronze or higher
TEAM PARTICIPATION				
Attendance of 60% or better to all team activities	Begins Oct 1	Begins 1 month after last day of previous year's final competition	Begins 1 month after last day of previous year's final competition	Begins 1 month after last day of previous year's final competition
Lead one department on the team. Except for the following, all groups have one student leader only: design (3), drafting (2), manufacturing (2)	N/A	Required	Required	Required
COMMUNITY OUTREACH				
Lead two community events (6 student team members participating, pictures must be taken and submitted to the team, and if the event is a charity event it must raise at least \$750 for the charity). All events can only have one leader except Celebrate Erie (3 leaders), the golf tournament (3 leaders), and the comedy club night (2 leaders). Mentoring an FLL team counts as one event.	N/A	Required	Required	Required
PROJECT EXECUTION				
Robot must have an average ranking of top quartile or better in the district/regional competitions it enters OR the team must win at least one team award. (This criteria has been met every year since 2002 except for two.)	Required	Required	Required	Required

The amount of the award will depend on the number of years a student has met all the criteria in each of the categories. Meeting all criteria for two years will result in a \$100 scholarship. Meeting all criteria for three years will result in a \$200 scholarship. Meeting all criteria for four years will result in a \$300 scholarship.

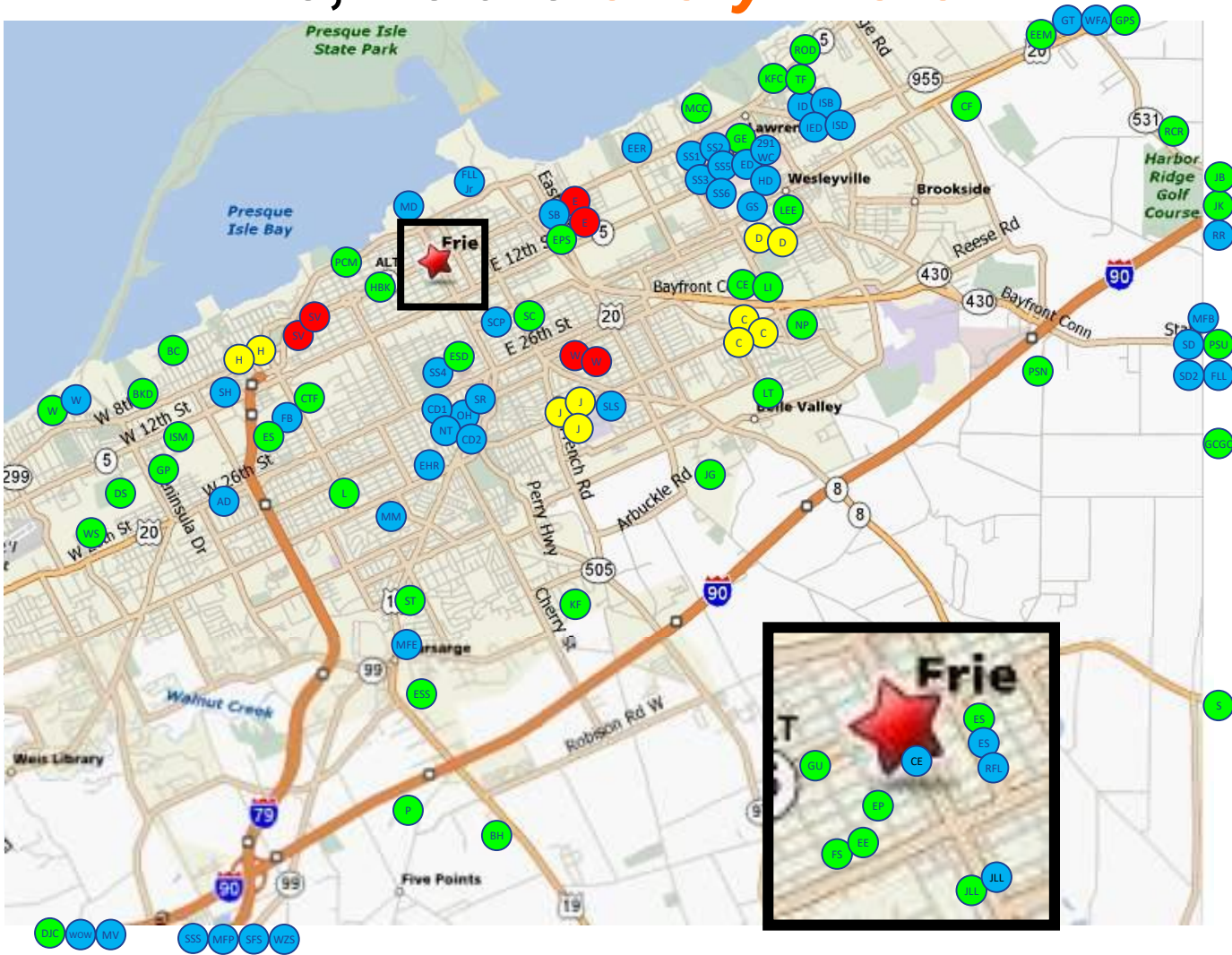
To ensure the long term sustainability of the team and this scholarship, the total outlay from the team may be limited to \$3000 in any given year. If the number of students qualifying for scholarships results in an amount exceeding this limit, scholarships will be pro-rated to make the total outlay equal to this limit.







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Community Outreach

In Erie, we are *everywhere*



-  FLL Jr. Team mentored by Team 291
-  FLL Team mentored by Team 291
-  Team 291 public exhibit
-  Team 291 sponsor



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Community Outreach

50 Events

Celebrate Erie: our biggest event

- 3-day festival
- **100,000+** people attended
- Erie's biggest annual event



2017-2018 Events Calendar

- Apr 30: March for Babies
- May 5: Jr's Comedy Night Fundraiser
- May 17: Erie School Board
- May-Jun: Awesome Dinosaur
- May 19: Iroquois Recruiting Demo
- May 27: WOW Championship
- Jun 19: Erie Seawolves Demo
- Jun 21: GE Girls STEM at Penn State
- July 1: Waldameer Science Day
- July 8: Relay for Life
- July 14: Golf Tournament
- July 14: Water for Africa
- July 19: Edison School Renovation
- July 21: Erie High Renovation
- July 25: Sponsors Reception
- Aug 5: Steel City Showdown
- Aug 18-20: Celebrate Erie

- Sep 20: NPCA Club Day
- Sep 23: MVRC Competition
- Oct 11: Manufacturing Day
- Oct 13: NASA talk at NPCA
- Oct 14: Space Travel Seminar
- Oct 15: Maker Fair - Pittsburgh
- Oct 17: Iroquois School Board
- Oct 29: Rah Cha Cha Ruckus
- Nov 3-18: Mystery Dinner Theater
- Nov 3-18: Food Drive
- Nov 11: Dark Matter Seminar
- Nov 11: Team 291 Web Symposium
- Nov 11: Maker Faire – Erie
- Nov 15: Shriner's Hospital
- Nov 19: Girl Scouts
- Nov 19: NPCA Open House
- Nov 20-21: Iroquois Club Fair

- Nov 21: St. Luke's School Demo
- Dec 2: Forensic Science Seminar
- Dec 9: FLL Tournament
- Dec 10: SHARP FIRST Symposium
- Dec 11-15: NPCA Clothing Drive
- Dec 19: Safenet Christmas Party
- Jan 9: Iroquois Elementary Demo
- Jan 13: Robotic Surgery Seminar
- Jan 22-Feb 24: FLL mentoring, Nigeria
- Feb 10: Nanotechnology Seminar
- Feb 17: Week Zero Scrimmage
- Feb 19: STEM night at Penn State
- Feb 20: GE Engineering Day
- Feb 23: Hobby Day at GE
- Mar 24: Grizzly Biology Seminar
- Apr 5: FLL Jr Expo

We launched our first-ever Science Day at Waldameer Amusement Park with a science scavenger hunt and competition videos for all park guests.



We raised \$1000 for Africa 6000 International, a charity that brings clean water to villages in Africa that lack this vital resource.



The Steel City Showdown was held for the first time and was the site of our first first-place trophy in the Steamworks game.

Our golf tournament really "drove" home the importance of FIRST in our community and brought in over \$8000.



CIA

Community Outreach



↑ **“WOW” is the right word**
The WOW Championship was crazy exciting and saw us taking one of the finalist banners home with us. WOW!

Laughs and Loot →
Our comedy night fundraiser brought in raised \$1300 and 13,000 laughs.



← **Walk the Walk**
Team 291 participated in the March for Babies, raising over \$2300 for the worthy cause.

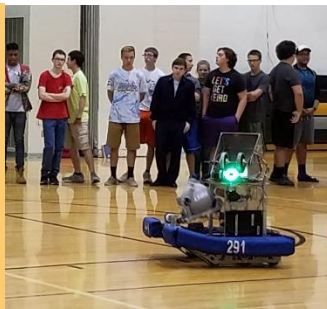


← **Just Awesome**
We mentored the students who were part of Awesome Dinosaur's after school programs.



← **GE Girls**
We ran the robotics module for the GE Girls STEM event held at Penn State Behrend.

Hitting the Gym →
Iroquois High School students got to see what FIRST is about with an slick demo in their gymnasium.



Open House →
Students new to NPCA had the chance to see all that FIRST has to offer.



← **Pitching FIRST**
Our robot made a huge showing when it threw out the first pitch at the Erie Seawolves game.

Relay for Life →
In support of a team member's mom, we raised \$1000 in the fight against cancer.





CIA

Community Outreach



↑ Junior Inventors Undertake This Year's FLL Challenge: The Aqua Adventure ↑

We mentored students from four different elementary schools who tackled project presented by this year's FIRST LEGO League Jr challenge: study how water is collected, processed, used, and returned to the environment. Here are three examples of their work: a bakery, a pasta restaurant with a drive-thru, and a lemonade store.

FIRST LEGO League Jr Gets Some Good "Expo"sure→

An FLL Jr expo is scheduled for March 13th which will be held at the Blasco Memorial Library where FLL Jr students can not only show off their FLL Jr models and "Show Me" posters, they can also tour and try out the library's new "Idea Lab" complete with 3D printers, doodle pens, and a host of other gadgets for the creative mind.



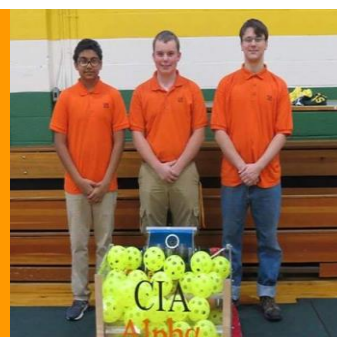
← Team 291 Takes FLL Global →

Working with regional FLL coordinator Ade Ojayi, Team 291 got the chance to mentor the two FLL teams at The Banky School In Abuja, Nigeria over Skype. Everyone got a lot out of the experience.



← Grade Schoolers 100% Enthralled →

The elementary school students at St. Luke's School and Iroquois Elementary School were totally enthralled by what FIRST robots can do. Suddenly playing other sports in the gym seemed like a disappointing use of the space.





CIA Community Outreach

Double Trouble →

We built a second robot for the Mahoning Valley Competition. It actually beat it's "older brother!"



It Could Be the King of Clubs ↑

Our team enjoyed explaining what FIRST is and how it works to the other students at NPCA's Club Day.



← Building Relationships

Team 291's exhibit booth at Manufacturing Day was well attended by both students and manufacturing leaders.



← Ready to Board →

We made presentations to the Iroquois and Erie School Boards, expressing our appreciation for their support and explaining what we've done with that support.



← Make A Ruckus

Rochester's Rah-Cha-Cha Ruckus was our fourth off-season competition and although we won no trophies, we went 5-0 in qualification matches and came home with plenty of excitement to carry into the 2018 season.



← We Clean Up Well →

We helped renovate two of our local schools. Edison Elementary and Erie High put our gardening and painting skills to good use.





CIA Community Outreach



← All's Faire in FIRST →

We participated in two different Maker Faires: one in Pittsburgh at SHARP's exhibit at the Pittsburgh Children's Museum and one in Erie at our local Barnes and Noble. Kids at both events were delighted to get the experience of being hands-on with technology.



CIA Administers "FIRST" Aid ↑

We went to Shriner's Hospital for Children so excited young patients could drive our robot and have a break from their hospital routine.



← Look to the Stars

We hosted a talk given by NASA for our entire high school about human space travel.

Briefing Our Backers →

We held a reception for our sponsors where we showed them what we had done and what we were planning.



← This is Even Better Than Selling Cookies

We helped dozens of Erie Girl Scouts earn three different merit Badges when we brought our robot to their meeting. We explained to them how the robot worked, simulated programming, and gave them the chance to drive our summer robot, Alpha.

FIRST Robotics helps Second Harvest Food Bank →

A 50-50 raffle held by all four local FRC teams at our annual murder mystery dinner theater raised a total of \$779 for the Second Harvest Food Bank. Thanks to the fact that a dollar donated to them can buy \$17 in food, our donation will result in food worth over \$13,000 – and just in time for the holidays!





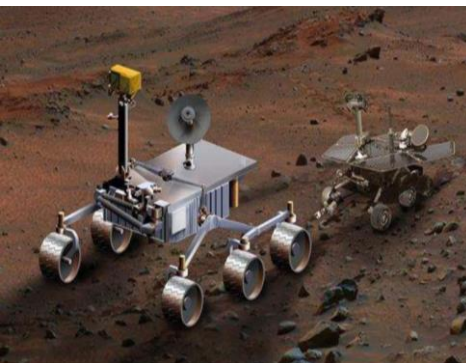
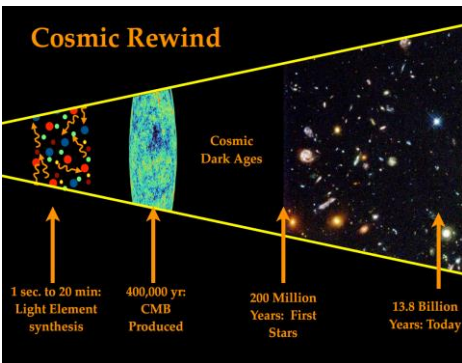
CIA Community Outreach



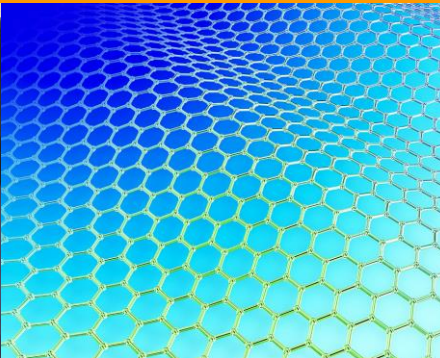
← **A Perfect Set-up**
Serving as field reset personnel and team mentors, we made sure the FLL Tournament was a tremendous success.



← **Looking SHARP**
We trekked south to Pittsburgh to take part in SHARP's workshop where we delivered a presentation on safety.



↑ **GE "STEMinar"** invited all Erie County high schools to learn what's next in tech ↑
Partnering with our primary sponsor GE Transportation, we hosted a total of six different presentations on a range of engaging science and technology topics including cosmology, space exploration, forensic crime scene investigation, robotic surgery, nanotechnology, and grizzly biology. Saying they blew people's minds would be a huge understatement. ↓



← **Global Appeal**
Our FLL partners in Nigeria whom we mentored on Skype love LEGOs as much as we do.

All Dressed Up →
We hosted a holiday party for the kids at the Safenet Women's Shelter including gifts and a decorated robot.





CIA

Community Outreach

Below is a letter sent to one of our mentors by Safenet, a shelter in Erie for victims of domestic abuse. We hosted a Christmas party for some of their children complete with Santa and a robotic "reindeer" one month earlier. We don't get letters like this from all of our community partners, but letters like this affirm for us that we're having an impact.

January 19, 2018

Mr. Michael Hayes
Shainin Program Manager

Dear Mr. Hayes,

Thank you so much for remembering SafeNet clients during this past Christmas season. We are so blessed to have friends like you who care about our families while they are dealing with such trauma in their lives.

Each year SafeNet hosts a holiday party for our residential clients and one for our non-residential clients - both parties are complete with a visit from Santa. You and your "Robot" group provided a wonderful atmosphere and enjoyment for the children in our non-residential group this year. Please convey my appreciation for all the people involved. What a wonderful group to be a part of. You not only test their skills at building a mechanical wonder, but you are helping them develop an awareness of and appreciation of diversity which is certainly an important part of education.

Thank you again for all you did to make this Christmas party so delightful for the children. My sincere wishes for a healthy, happy and prosperous New Year.

With appreciation,

Linda Lyons King
Executive Director



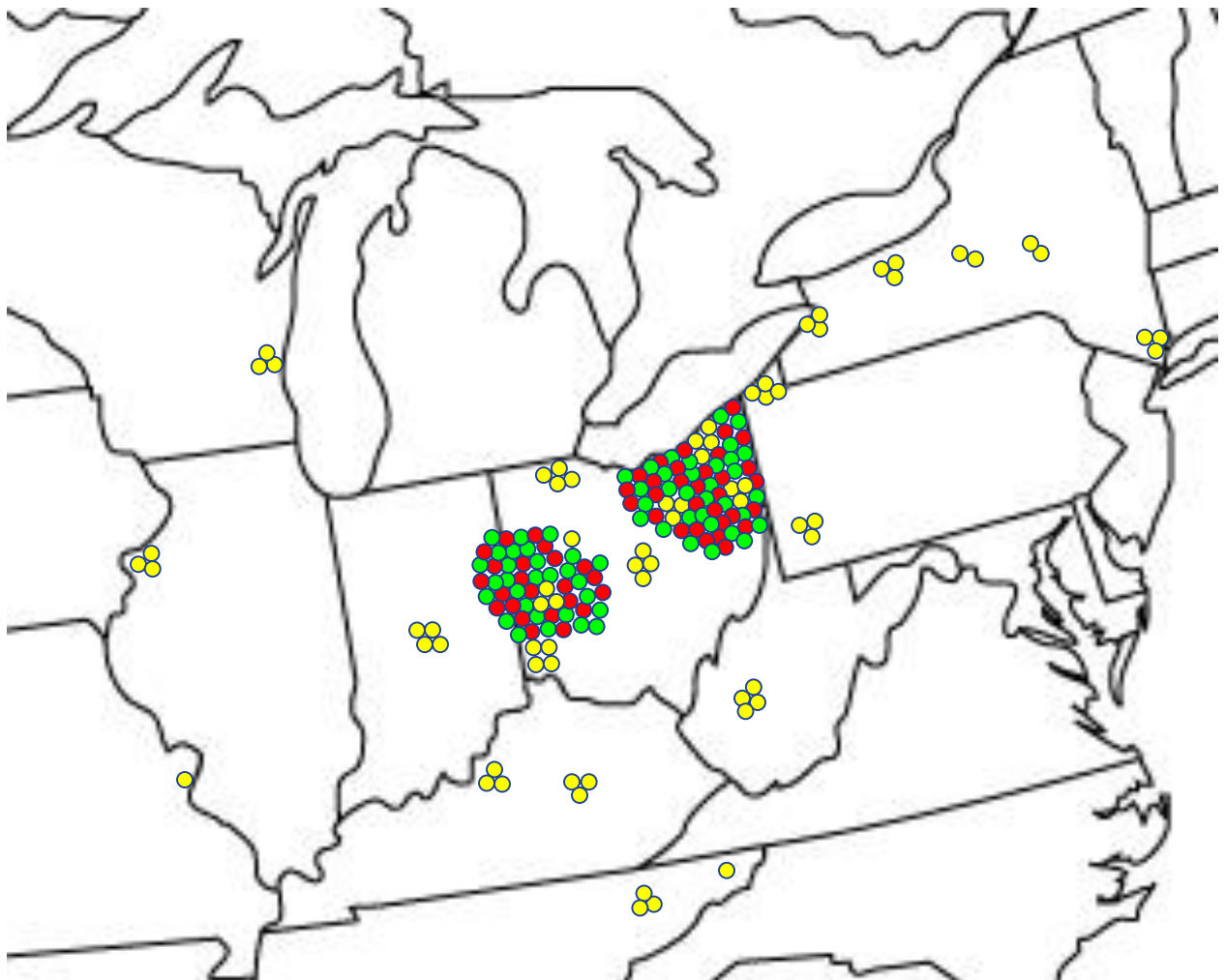
Providing Shelter, Counseling,
Advocacy, Legal Representation,
Education & Transitional Housing for
Survivors of Domestic Violence






CIA

Media Outreach

In an effort to get the word out on *FIRST* to as many TV stations, radio stations and newspapers as possible, we launched our tenth annual media blitz. Shown on the map below are 190 media outlets that we contacted explaining this year's amazing competition and inviting them to come witness *Power Up* in person.

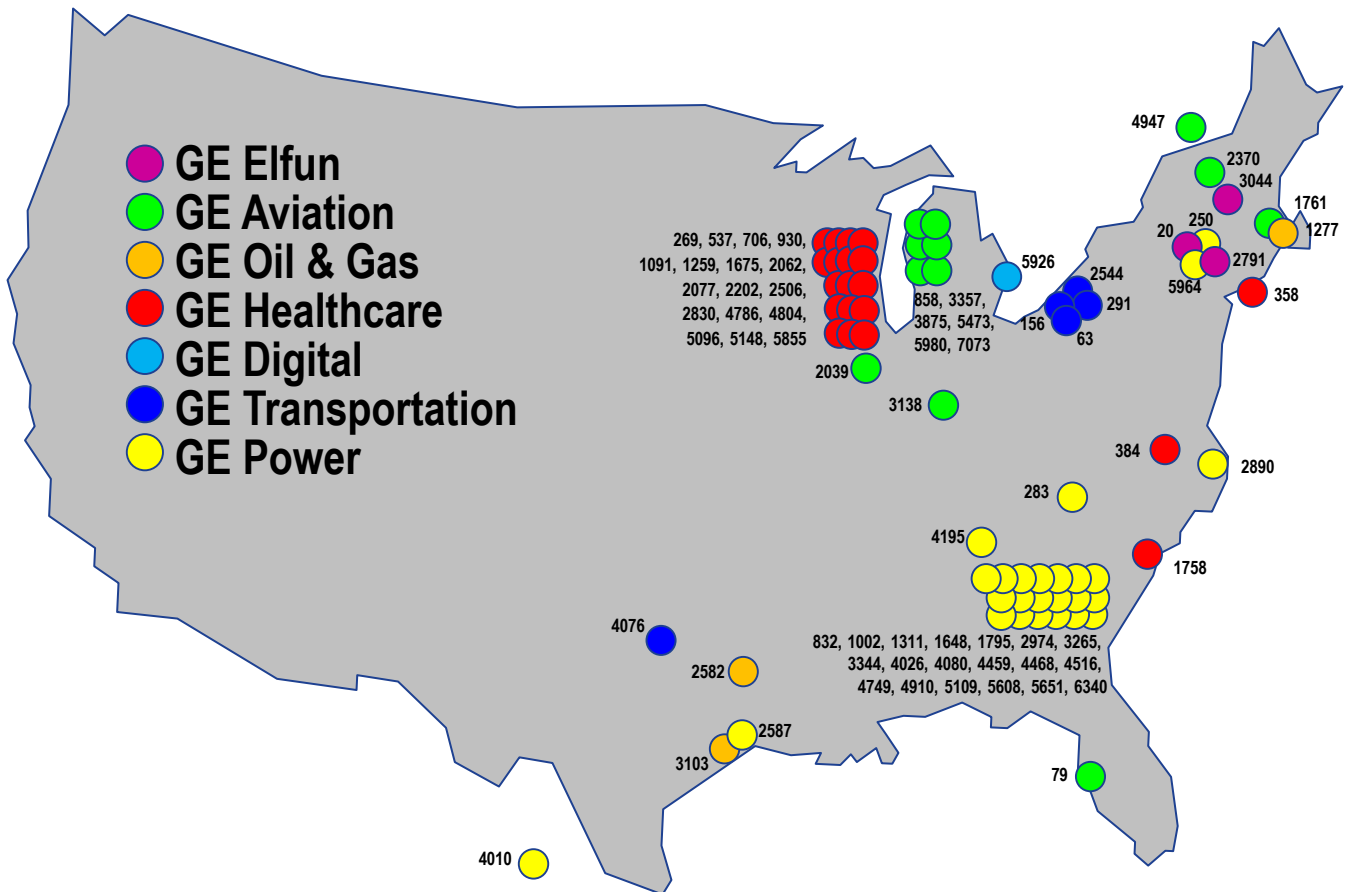


-  75 network TV stations in the hometowns of every team that we'll see at our regional competitions (not shown: stations in SC & FL)
-  54 radio stations in Dayton & Cleveland (where we'll be competing) and their surrounding areas
-  61 newspapers in Dayton & Cleveland (where we'll be competing) and their surrounding areas



CIA

GE Support Network



From what had been only two GE teams in 2000, GE Volunteers are working with their respective divisions to sponsor **70 FRC teams**.

With so much growth, it seemed vital to ensure that all teams had whatever support we could provide. So **teleconference meetings** were held **twice a week** during build season where all teams could discuss strategies for everything from fundraising to programming techniques.

Additionally, Team 291 is proud to say that it played a significant role in the creation of five FRC teams over the years. Among them are teams 537, 1761, and 2544 which collectively have 42 years of GE sponsorship and 49 different awards.



CIA

Team Awards

At each regional competition that we attend, we present awards to teams that, in our estimation, demonstrate exceptional creativity in various areas. Listed below are the awards that we will be giving out at this year's competitions:

Autonomous: presented to the team whose robot has a brilliant mind of its own and proves it in the first fifteen seconds of every match.

Creative Design: presented to the team whose design or use of materials gives you no other choice than to say, "Wow, now THAT'S slick!"

Drivers: presented to the team whose drivers keep as cool as the other side of the pillow in the midst of the frenzied adrenalin of competition.

Gamemasters of Triskelion: presented to the team whose ingenious strategies prove that they're playing three-dimensional chess while the rest of us are still playing checkers.

Super Duper Uber Cuber: presented to the team that most consistently shows a mastery of power cube acquisition and placement.

Ella Vader: named for Darth's lesser known sister, this award is presented to the team that forces itself 12 inches above the platform.

Rookie: presented to the rookie team who has excelled in demonstrating creativity and innovation beyond their years.

Safety *FIRST*: presented to the team that has found a clever way to make folks who are already safe even safer.

Through these awards, we hope to compliment teams that show outstanding creativity in a particular area. Since we are "Creativity In Action" we look forward to inspiring other teams to continue striving for creativity, ingenuity, and innovation.

