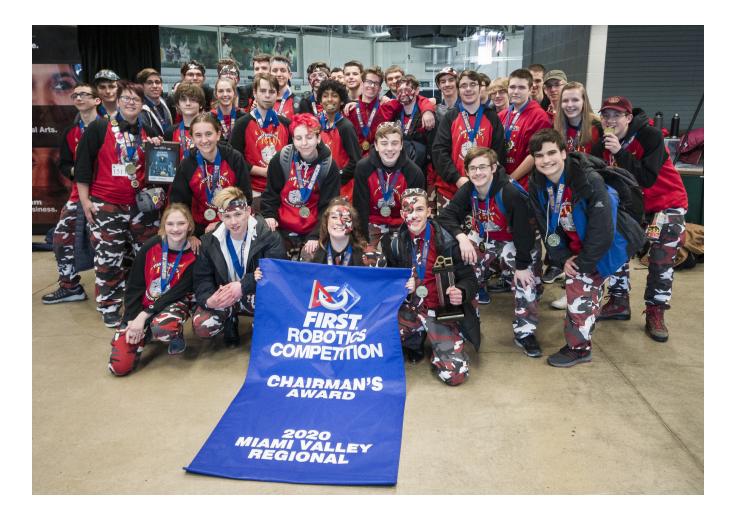
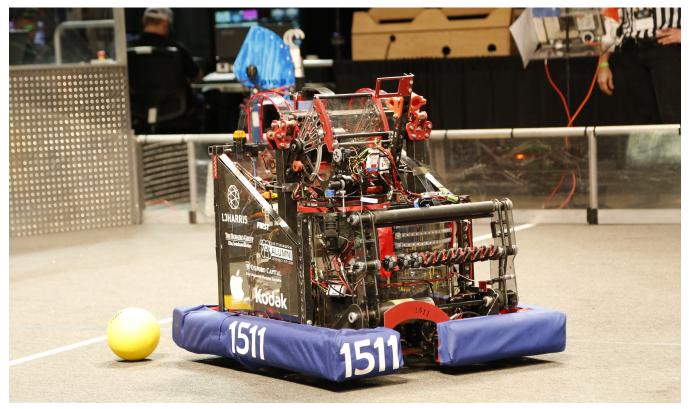
# 2020 PATRON BOOK









### For Inspiration and Recognition of Science and Technology

## Vision

"To transform our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology leaders." Dean Kamen, Founder

## Mission

The mission of *FIRST*<sup>®</sup> is to inspire young people to be science and technology leaders and innovators, by engaging them in exciting mentor-based programs that build science, engineering, and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.



### Methodology

Engage kids in kindergarten through high school in exciting, mentor-based, research and robotics programs that help them become science and technology leaders, as well as wellrounded contributors to society.

## About FIRST

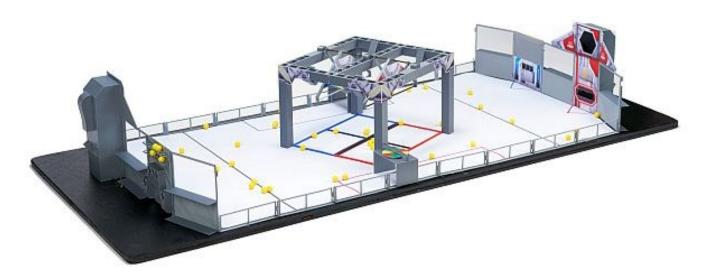
*FIRST* (For Inspiration and Recognition of Science and Technology) was founded in 1989 to inspire young people's interest and participation in science and technology. Based in Manchester, NH, the 501(c)(3) notfor-profit public charity designs accessible, innovative programs that motivate young people to pursue education and career opportunities in science, technology, engineering, and math, while building self-confidence, knowledge, and life skills.

*FIRST* is **More Than Robots.** *FIRST* participation is proven to encourage students to pursue education and careers in STEM-related fields, inspire them to become leaders and innovators, and enhance their 21<sup>st</sup> century work-life skills.





# INFINITE RECHARGE



In INFINITE RECHARGE<sup>SM</sup>, two alliances work to protect *FIRST* City from approaching asteroids caused by a distant space skirmish. Each Alliance, along with their trusty droids, race to collect and score Power Cells in order to energize their Shield Generator for maximum protection. To activate stages of the Shield Generator, droids manipulate their Control Panels after scoring a specific number of Power Cells. Near the end of the match, droids race to their Rendezvous Point to get their Shield Generator operational in order to protect the city!

During the 15 second Autonomous Period, droids follow pre-programmed instructions. Alliances score points by:

- 1. Scoring Power Cells in the Power Port
- 2. Moving from the Initiation Line

In the final 2 minutes and 15 seconds of the match, drivers take control of the droids. Alliances scores points by:

- 1. Continue to score Power Cells in the Power Port
- 2. Completing Rotation Control
- 3. Completing Position Control
- 4. Hanging from the Generator Switch
- 5. Getting the Generator Switch to the level position

The Alliance with the highest score at the end of the Match wins.

# FIRST ROBOTICS TEAM 1511 ROLLING THUNDER







THE THUNDER JUST KEEPS GETTING LOUDER











At L3Harris, we are more than just a proud supporter of the *FIRST* Robotics Program ...









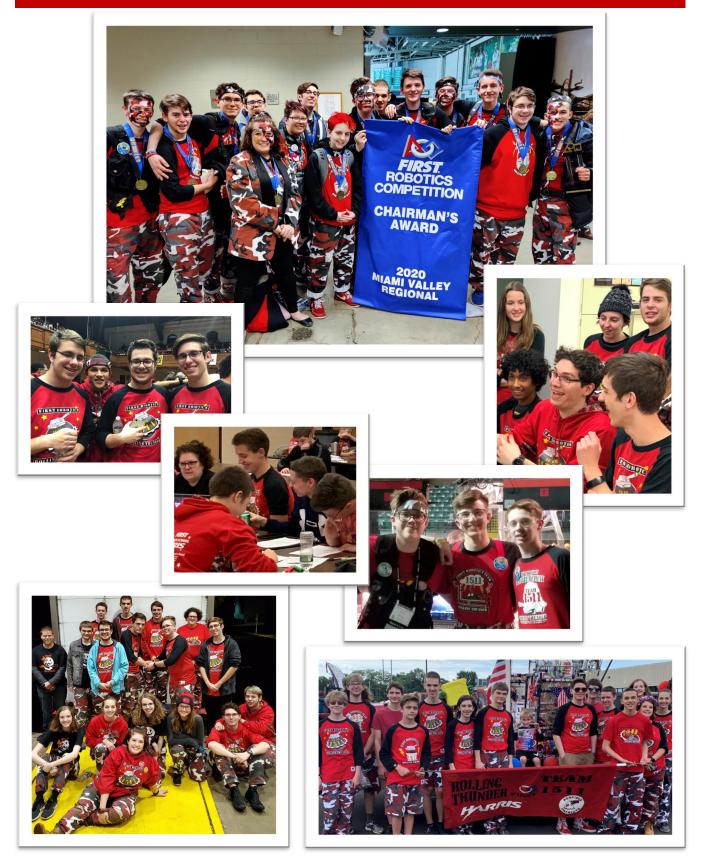
WE <u>LIVE</u> FOR THIS STUFF.



# **MEET OUR STUDENTS**



# **THANK YOU SENIORS!**



## **MENTOR PARADE FOR SENIORS**

















CONGRATS ZACK

2020 SENIOR

1511 ROLLING THUNDER

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HOME OF A PENFIELD SENIOR



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# **MEET OUR MENTORS**





Amy Averill\* Eric Averill\* **Dave Burlone\*** Mark Byers Cynette Cavaliere Tom Cavaliere Carol Downs Jeff Downs Sarah Frisicano\* Josh Gannon\* Josh Goodman John Hall (Bear) Hugh Hastings **KT** Hastings Nancy Hastings Rohan Khaleel **Roseanne Khaleel** Jason Kuberka Amy Leute

Larry Lewis+ Leann Lewis Kristi McOmber Lisa Paille Gabe Rosenberg Anthony Spinelli\* Chris Sowden Janet Sowden Ben Stoeckl Christian Stoeckl Akili Tobechi II\*

<u>Teachers:</u> Ralph Pizzo David Weisbrod

> +Lead Mentor \*L3 Harris





















# AWARDS

#### 2020INFINITE RECHARGE

Miami Vallev Regional Fairborn, OH February 26-27

Chairman's Award

## 2019

**DESTINATION: DEEP** SPACE Festival de Robotique Montreal. QC February 28–March 2 **Regional Finalist** 

**Imagery Award** 

Finger Lakes Regional Rochester, NY March 14-16

**Spirit Award Dean's List Finalist:** Kyle Berg

### 201 POWER UP

Midwest Regional Chicago, II April 6-7

**Imagery Award** 

#### 2017**STEAMWorks**

Finger Lakes Regional Rochester, NY March 16-18

Chairman's Award

Dean's List Finalist: Jordan Sayegh

Woodie Flowers Finalist: **Cynette Cavaliere** 

Midwest Regional Chicago, II March 31–April 1

#### **Regional Winner**

**Engineering Inspiration** Award

Championship St. Louis. MO April 27–29

Championship Subdivision Winner: Curie

#### 2013 Ultimate Ascent

**Finger Lakes Regional** Rochester, NY February 28–March 2

Gracious **Professionalism Award** 

Dean's List Finalist: Ciana Robertson

Woodie Flowers Finalist: Larry Lewis

**Boston Regional** Boston, MA March 21-23

**Regional Winner Industrial Safety Award** Gracious **Professionalism Award** 

#### 2016 Stronghold

Greater Toronto Central Regional March 3-5

#### **Regional Finalist** Chairman's Award

Finger Lakes Regional Rochester, NY March 24-26 **Imagery Award** 

Dean's List Finalist: Amal Elhelw **Woodie Flowers** 

Finalist

Championship St. Louis, MO April 28–30

Championship Subdivision Winner: Curie

## 2015

**Recycle Rush!** Festival de Robotique Montreal, QC March 19-21

Chairman's Award

Finger Lakes Regional Rochester, NY March 26-28

**Spirit Award Dean's List Finalist: Tess Kremer** 

## 2014

## **Aerial Assist**

Award

Rochester, NY March 27-29

Chairman's Award

NY Tech Valley Regional Troy, NY

March 13-15 **Engineering Inspiration** 

Finger Lakes Regional

# AWARDS (CONT.)

#### 2012 Rebound Rumble

Finger Lakes Regional Rochester, NY March 8–10

Innovation in Control Award

**Dean's List Finalist:** Justin Byers

Woodie Flowers Finalist: Jeff Downs

Volunteer of the Year: Larry Lewis

Connecticut Regional Hartford, CT March 29–31 2011

Engineering Inspiration Award

#### 2008 FIRST Overdrive

Finger Lakes Regional Rochester, NY March 6–8

Engineering Inspiration Award

Philadelphia Regional Philadelphia, PA April 16–20

Imagery Award Safety Award

#### 2011 Logo Motion

Finger Lakes Regional Rochester, NY March 3–5

#### Gracious Professionalism Award Dean's List Finalist:

Jason Kuberka

Washington DC Regional Washington, DC March 24–26 **Chairman's Award** 

2007

Rack 'n Roll

Rochester, NY

March 9-11

Boston, MA

March 22-25

Finger Lakes Regional

Chairman's Award

**Team Spirit Award** 

Website Award

**Boston Regional** 

#### 2010 Breakaway

Finger Lakes Regional Rochester, NY March 4–6

Engineering Inspiration Award

Boston Regional Boston, MA March 25–27

**Regional Finalist** 

Chairman's Award Coopertition Award

Dean's List Finalist:

Crystal Vongnaphone

Championship Atlanta, GA April 15–17 2010 **Quarter Finalist: Curie** 

## 2006

*Aim High* Finger Lakes Regional Rochester, NY March 9–11

#### Engineering Inspiration Award

Boston Regional Boston, MA March 23–25

Imagery Award

# **2009**

Finger Lakes Regional Rochester, NY March 5–7

#### **Regional Finalist**

Kleiner, Perkins, Caufield & Byers Entrepreneurship Award

Chesapeake Regional Chesapeake, MD March 19–21

**Imagery Award** 

Website Award Chairman's Award

Championship Atlanta, GA April 15–18 2009

International Judges Award for Integrated Performance

## 2005

Finger Lakes Regional Rochester, NY March 3-5

**Rookie All-Star Award** 

Buckeye Regional Cleveland, OH March 24-26

Highest Seeded Rookie Award

Greater Toronto Regional Toronto, ON March 31-April 2

Regional Champions Rookie Inspiration Award Team Spirit Award

Championship Atlanta, GA April 21-23 **Rookie All-Star Award** 

## **CHAIRMAN'S EXECUTIVE SUMMARY 2020**

# Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2018/2019 year and the preceding two to five years

1511 focuses on developing students into leaders in their community, in the Capitol & in their futures. In 5 years 100% of alumni went to college; 98% pursued STEM careers. Alumni received \$300k+ in *FIRST* scholarships.1 in 5 alumni are *FIRST* mentors. In 5 years, 22 alumni mentored us. Alumni work at NASA, Amazon, Toyota and L3HARRIS. Mentors learn to manage, network, collaborate & volunteer in *FIRST*. 1511 is welcoming & inclusive, developing lifelong friendships. We will always be 1511 members.

#### Describe the impact of the *FIRST* program on your community with special emphasis on the 2018/2019 year and the preceding two to five years

This year, we held 63 community events: Children's Hospital walk; Honor Flight, AutismUp; raised \$27k+ for causes; MEGADrive donated 14K+ items! Supported local homeless community by donating socks & food. Robot demos: Girls in STEM @ RIT, 2 NYS Fair booths (266k attendees), STEAM Fest (900 K-8 students), Roc Maker Faire (4.5k), ImagineRIT (30k), July 4th Parade (2k). Helped Girl Scouts earn robotics badge. Safety Program & Leadership materials used by PHS! Robotics Board of Reps formed in 2018.

## Team's innovative or creative method to spread the *FIRST* message

NEW this year: We started Robot Cage Match, an event to promote *FIRST* where Penfield students cheered on admins & teachers who drove our bots to play Destination: Deep Space. This year we created Grateful Red, a free music fest with food trucks & robot demo at our town amphitheater as a fun way to promote *FIRST*. It was aired on TV news! We now stream all our events on Spectrum TV/AppleTV/Twitch/ YouTube/Roku. Trivia Night engaged 100+ community members. Penfield *FIRST* Expo gets kids into *FIRST*.

Describe examples of how your team members act as role models and inspire other *FIRST* team members to emulate We have high standards for team conduct in & out of competition. Teams model after us for events, Chairman's, leadership, safety program & fundraising. Teams call our Pit & Shop, Thundermart, because they can get any parts, tools, mentorship or technical help from us. We teach teams via workshops, presentations at Champs/Regionals/Kickoff, mentorship & funding. At all levels of *FIRST*, we run our own events, volunteer at others, started 107 teams in 5 years (24 this year) & mentor (16 this year).

## Describe the team's initiatives to help start or form other FRC teams

1511 mentors went to China and inspired the start of 2 teams whom we remotely mentored in 2017; helped 7635 make parts, ship their bot and attend FLR. Raised \$2500 for Afghan Dreamers registration. Urged teachers/admins to put *FIRST* in their schools at Science Teachers' Assoc. NYS & NYS School Board Assoc. conferences. 1511 webinar & materials in the *FIRST* Fundraising Toolkit help sustain. This year we started the NY Advocacy Conf. to teach teams how to lobby for *FIRST* funding & grow NY *FIRST*.

#### Describe the team's initiatives to help start or form other *FIRST* teams (including Jr.FLL, FLL, & FTC)

Due to 1511, Penfield has all levels of *FIRST*: teacher stipends, LEGO kit funding, 1511 mentorship & starting FTC6996 & Penfield FLLJr. This year, we started 8 more FLLJr & 16 FLL; funded 1 FLL; mentored 1 FTC, 12 FLL & 3 FLLJr teams. We offer Help Sessions (15 this year) & info on starting teams. We focus on underserved areas: joined RIT to start urban/rural teams, mentor a city school team, run 4 low-cost FLL camps to reach more kids. In 5 years, we gave \$39k to 250+ FLLJr/FLL/FTC teams.

#### Describe the team's initiatives on assisting other *FIRST* teams (including Jr.FLL, FLL, FTC, & FRC) with progressing through the *FIRST* program

This year we assisted 33 FRC teams: making parts, mentor training, webcasting, Chairman's & funding. We assisted 2 FTC, 12 FLL & 5 FLLJr teams: game tests, website &

## **EXECUTIVE SUMMARY (CONT.)**

competition help. We host trainings & conferences on strategy, student integration, advocacy & leadership. 1511 became the designated team liaison for eNABLE in 2019. We fund team supplies & registration fees. We run & volunteer at *FIRST* events & hosted the Penfield FLL/FTC Qualifiers. 85% of FTC6996 students move on to 1511.

# Describe how your team works with other *FIRST* teams to serve as mentors to younger or less experienced *FIRST* teams (includes Jr.FLL, FLL, FTC, & FRC teams

We mentored 66 FLLJr/FLL/FTC & 7 FRC teams in 5 years. Started NY Advocacy Conf. with FRC20 & 4122 inspiring 8 teams to lobby for *FIRST* in NY. FRC2468 invited us to present at SACOT. We cohosted an FLL off-season w/ FRC578. We presented on team structure & strategy at SWATposium w/ FRC771. We presented on advocacy at Champs w/ FRC27 & FRC1816. At our Kickoff we present on strategy & beta testing results. Our All-Rookie Meet & Greet is focused on sustainability: assisting 300 teams in 5 years.

#### Describe your Corporate/University Sponsors

L3Harris has been our main corporate sponsor for 16 years. They are a supplier of government/ commercial communication systems. The Kettering/ GMI Alumni Assn. awarded us with a sponsorship (1 of 8 teams out of 100+ applicants). Each year 60+ Patron Drive sponsors provide a local connection and range from small families to international companies. Apple provided us with a registration grant. Patron Drive: Each year students talk to 400+ businesses advocating *FIRST*. This year we raised \$19k+.

#### Describe the strength of your partnership with your sponsors with special emphasis on the 2018/2019 year and the preceding two to five years

L3Harris provides funds, 7 mentors, studentdesigned parts, scouting tablets scouting, a Mentor Thank You Lunch & tours for us & our FLL teams. We demo at their events & Take Your Child to Work Day. Mentors work year-round, involved in school curriculum & team building. Other sponsors provide 4 mentors, late-night welding & parts. Our school provides overtime for janitors, workspace, machinery/tools & stipends for 3 advisors. We send sponsors newsletters & invite them to our events to thank them

### Describe how your team would explain what *FIRST* is to someone who has never heard of it

*FIRST* breaks cultural norms, inspiring students to pursue STEM careers, look up to STEM professionals & be change makers. *FIRST* provides limitless opportunities students can't find elsewhere through the practical application of STEM skills. It is a safe place for students to take risks, learn from their experiences & grow into the next generation of STEM LEADERS. It's where students have a sense of belonging & make lifetime friends. This makes them want to mentor & stay in *FIRST*. And it's FUN!

## Briefly describe other matters of interest to the *FIRST* judges, if any

Our goals are to help teams & ourselves reach full potential, be all-inclusive & encourage LEADERSHIP. We've impacted our school's curriculum with our safety & leadership trainings. This year, 6 of our alumni are mentoring our team & 4 are Lead Mentors on others. Alumni & mentors volunteer at 1511 & *FIRST* events at all levels. Our team bonds through traditions like Ice Cream for Breakfast Day, Shamrock Shakes after Rally field build, Y-pose across stadiums to each other & dancing our hearts out.

## For *FIRST* Robotics Competition teams older than 5 years, briefly describe your team's broader impact from its inception.

1511 leads the way year-round; creating the first Rochester offseason event that runs much like a FRC competition with 44 teams; running high impact demos to an estimated 3 MILLION; helping teams in 17 countries; being published in a book & magazine; drafting a children's book; & lobbying to pass state & national legislation! We've created a high density of local *FIRST* teams and the need for more FLL/FTC events. Mentored 60+ FLLJr/FLL/ FTC & 29 FRC teams in 15 years.



## **CHAIRMAN'S AWARD ESSAY**



When faced with a new opportunity that's within our resources, 1511 asks "Why Not?" It opens us up to new ideas that lead to amazing opportunities, enabling 1511 to grow and improve. This year we started the NY Advocacy Conference (NYAC) and a rockin' music fest; built excitement with teachers & admins about FIRST at the NYS School Boards Association (NYSSBA) & Science Teachers Association of NYS (STANYS) conferences and at our new Robot Cage Match; hosted the first FTC Qualifier & expanded FLL Jr in Penfield; streamed our events on TV; demoed at an all-girls STEM Fair, ComiCon & FIRST Night at the Ballpark; joined the LGBTQ+ of FIRST Alliance; donated 1,511 socks to a local shelter; drafted a kid's STEAM book & helped a Brownie Troop get a robotics badge. In addition, we've sustained events over the years to expand *FIRST* in our community to an estimated 3 MILLION PEOPLE!

#### ADVOCATING FOR CHANGE

1511 creates change by advocating for legislation that supports programs like *FIRST*. Every year, we speak to all levels of government to educate them about *FIRST*, from Governor Cuomo's office to Betsy DeVos! We're on the National Advocacy Conference (NAC) committee, attending since 2014. Our presentations at NAC & Detroit Champs encouraged more teams to lobby for change.

This led us to start NYAC. We invited Steve Hyer from NAC and the NY Deputy Secretary of Education to teach attendees how to advocate effectively. 8 teams attended and advocated for a bill that would provide funds for new NY teams. The 2nd annual NYAC is in the works!

Our advocacy efforts contributed directly to the passage of the Every Student Succeeds & Perkins Acts, which provide equal opportunity for students in special education and increased funding for technical education, respectively. These acts set the precedent for funding programs like *FIRST*. Our reputation as an advocacy leader has led to cross-country connections with other teams, such as being invited to participate in the STEM Advocacy Conference of TX!

#### PROMOTING FIRST IN A BIG WAY

Part of developing motivated students is hooking them prior to Build Season. Since 2005 we've run Rah Cha Cha Ruckus, the first NY offseason event, which teams use to recruit and test new pit crews/drive teams. We've improved it every year, now holding it in a large concert venue for 44 teams, some from Canada and China. Teams used it as a model for STEMley Cup and Robot Rumble offseasons.

Rumble, our FLL offseason, gives teams another chance to compete. The All-Rookie Meet & Greet at Champs helps rookies network; we give them fundraising tips and leadership materials. We build the actual field for our week 0 scrimmage, Rally, where teams can test their robots.

A new way we share *FIRST* with a wider audience is by streaming all our events on Roku, Apple TV & Spectrum TV, including Twitch & YouTube. Since 2018, 5,000+ people from 27 countries have watched. We also have over 4,000 followers on social media and invite the press to all events.

This year we took it up a notch, mixing rock and robots by starting the Grateful Red Music Fest. We invited local bands and food trucks to

## CHAIRMAN'S AWARD ESSAY (CONT.)

join our robot demo at the Town Hall Amphitheater, and raised money for AutismUp. It gave a new audience a firsthand look at what we do and was covered on local TV news, accessing more people. The next one is in the works! Our fun & innovative events have built a community that embraces *FIRST*.

#### **IMPACTING OUR COMMUNITY**

Our robot brings smiles to people at 20+ demos a year. We dove into the Maker movement 5 years ago when the Rochester Maker Faire started, organizing a large-scale exhibit featuring all levels of *FIRST*. It's so popular that the Maker Faire expanded our space to fit half a FRC field, FTC space & FLL/FLL Jr tables, helping us reach many of the 4,500 attendees.

This was our 10th year running a 2-day demo at the NYS Fair, introducing *FIRST* to a broader audience and encouraging more NY teams. We talked for hours to a potential 266,000 in attendance that weekend who came by our booths in 2 different buildings. A 1511 goal is to get *FIRST* in all NY schools. We shared our passion for *FIRST* by presenting at NYSBBA, attended by 2,000+ education leaders, and showed off our bot at STANYS and to 900+ students at STEAM Fest.

Our annual Trivia Night fundraiser was created last year as an innovative way to engage the community. In its 2nd year, we more than doubled the revenue and attendance, with over 100 participants.

We remain visible in the community by lending a helping hand. We applied to be a Giving Partner with Bombas Socks and donated 1,511 pairs of socks to a local shelter to support the Rochester homeless community. While there, we made lunch and stocked their food pantry. Supporting personal causes, like the Leukemia & Lymphoma Society and the Ronald McDonald House, we've raised over \$27K. Our longest running service project is the *FIRST* MegaDrive. In 5 years, we've donated over 14,000 kids' books, toys, food items and school supplies to our community.

#### PROMOTING FIRST IN PENFIELD

Recruiting and retaining students from FLL Jr through FRC is a goal, so we incorporated *FIRST* programs into every Penfield school. We achieved this by working with our District to fund teacher stipends & LEGO kits, and we provided funds & mentorship to start teams. 85% of our FTC students move on to 1511. We excite kids about *FIRST* by showing off our robots every year at Penfield school events, Cobbles Elementary Science Night, Indian Landing Carnival, *FIRST* Expo at Bay Trail, Cobbles Ice Cream Social & the Penfield STEAM Fair.

Due to 1511's initiative, 160 Penfield District students are currently in all levels of *FIRST*. In 2013, we started and mentor FTC6996 and help them fundraise. New this year, we assisted them in organizing the first Penfield FTC Qualifier. This year, we started 8 new FLL Jr teams, mentoring 3 teams weekly for 11 weeks through a partnership with the Penfield Recreation Department, & held an expo for them! We started 16 FLL teams, mentoring 12 this year at 1511 Help Sessions.

We've awarded over \$21,000 in FLL grants in the past 5 years to start and sustain FLL teams, especially teams in underserved communities. Last year, we participated in RIT's STEP program aimed to get rural and urban FLL teams started. We've organized the Penfield FLL qualifier for 6 years & volunteer at the local FLL Champs every year. Our 4 low-cost FLL summer camps, in 2 towns, for 100+ kids in Rochester, makes *FIRST* accessible to all.

Strong bonds retain 1511 members beyond FRC. 1 in 5 of our alumni stay in *FIRST* as mentors. 22 of our alumni have mentored 1511 in the last 5 years; 5 currently. 4 of our alumni are FRC lead mentors; 2 run and mentor FLL teams. Many of our alumni volunteer at *FIRST* events. 98% of alumni from the last 5 years have gone into STEM careers. In memory of an

## CHAIRMAN'S AWARD ESSAY (CONT.)

amazing 1511 alum, we created the Tommy Murphy Scholarship, and awarded it to our first 2 students last year.

Cage Match was our NEWEST event this year where school faculty went head to head driving our robots in a modified version of Destination: Deep Space to deepen their understanding of *FIRST*. They loved it! Our Superintendent tweeted about how he and his team (which included our Principal) had a new appreciation for robotics.

#### **1511's CORE**

We realize that investing in teammates is important because it creates enthusiastic students who are excited to introduce FIRST to a variety of audiences. By empowering students with leadership roles, they become more invested in our team. Our leadership subteam has 11 roles chosen by students based on interest and team needs (i.e. Student Coordinator to help retain members). We also reserve a role for new students to apply for leadership so they can learn from our other student leaders and grow as a leader. In addition to running our year-round meetings and approving our events, they run long term projects to teach the Engineering Design Process before Build Season, like making tennis ball launchers and competing with them during our holiday party. Each subteam is led by a mentor and one or two students. Three students also lead on the Robotics Board of Representatives, working with teachers, mentors and parents to develop team policies. Students can earn team roles at any grade level; we value and reward hard work and dedication over seniority.

Mentors guide students to discover their passion and utilize their strengths to meet team goals. Our Mechanical Subteam student leader ran a preseason Advanced CAD Class every Friday night with mentor guidance. Our artistic students used their skills to draft a children's book about STEAM superheroes to engage a younger audience. Last summer, we built a swerve drivebase; and as a plus, new students joined the project and made friendships with returning students.

Students run fundraisers as part of our Student Achievements System. Patron Drive, our largest fundraiser, helps to train us in communication skills. We gain financial support while learning how to interact with people in positions of power. We raised 60% more funds than last year after meeting with 400+ businesses & community members. 1511's model is featured in the *FIRST* Fundraising Toolkit and many teams have used it.

1511 provides other ways to lead year-round through student-run activities, 63 this year. Students also participate in event planning for our major events. Our Leadership Boot Camp is an all-day intensive training where students develop skills like public speaking and time management. We apply our skills in real-world, effective ways at Board of Ed. presentations, Champs Conferences and Advocacy. Our 8 Dean's List Finalists are evidence of our team's success in developing leaders.

## THE THUNDER KEEPS GETTING LOUDER!

Our team is inclusive, helpful, responsive & dedicated to creating future STEM leaders who understand the importance of giving back to the world around them.



## **DEAN'S LIST NOMINEE: JADON BLAAKMAN**



Jadon has been a member of *FIRST* for the past 10 years. He is a true *FIRST* legacy student, starting in FLL Jr, being part of multiple FLL teams, on FTC6996, then finally joining FRC1511. His years of experience have

helped him understand what makes a robotics team and he brings those lessons to 1511.

According to Jadon, the key components of a GREAT robotics team are passionate team members who embrace their team spirit, which bonds them. He also understands the value of good mentorship, reflecting on when his mentors took the time to teach him how to use specific tools and machinery. He said it opened a whole new world for him with an "explosion of opportunity." He says he still remembers his lines from his FLL presentation skit because his mentors were so motivating and supportive. Jadon has applied these models to contribute to his *FIRST* teams effectively.

Never forgetting his *FIRST* roots, he volunteers at the local FLL qualifiers and Championship events. He gives back to his former team, FTC6996, by helping them fundraise at the annual Bill Gray's robot demonstration and by babysitting at their Kids Night Out event.

Jadon's entrepreneurial spirit has been shown in his most recent project, creating a children's book about STEAM superheroes. What started as a fun side project soon turned into a large leadership effort. Jadon organized multiple team members, including new team members and friends not even on the team, to storyboard, write and illustrate. He hopes to publish it by this summer to help engage children in STEAM and inspire them to join *FIRST*.

This year, Jadon decided to pursue a formal leadership role on the team to continue to develop his leadership skills. He was voted into the Robotics Board of Representatives by his peers, where he works as an equal partner with teachers, mentors and parents to make team policies. This has also allowed him to learn the inner workings of administration of the team and the importance of leadership in helping the team grow. He is also the leader of the Robot Controls subteam, blending his artistic side with his technological savvy to produce impressive controls. He is the main student working in Inventor CAD and is involved in every part of the controls. He leads by example; he is a team player and always shows up ready to work and is willing to do what needs to get done, even if it is not the most exciting task.

He continues to help our team be successful by volunteering at all of the team's major events, including Ruckus, our offseason event, Rally, our pre-competition scrimmage, and the Grateful Red Music Festival. The festival is our newest event where we invited local bands and food trucks to join our robot demonstration at the Town Hall Amphitheater. Jadon helped show off the robot to a new audience to help them get a firsthand look at what we do and what *FIRST* is all about. He also shared his passion for *FIRST* at our largest robot demonstration, the NYS Fair, with over 266,000 people in attendance the weekend we were there.

He also raises funds for several charities like the Leukemia and Lymphoma Society at Light the Night and AutismUp at the Grateful Red Music Festival. In 2019, Jadon answered the call to be 1511's new Food Drive Coordinator. For the last two years, he has organized and run our annual Souper Bowl Food Drive, a Super Bowl themed food collection for the Penfield Ecumenical Food Shelf. He remains the key contact for the team's other food collections throughout the year.

Jadon keeps improving his *FIRST* legacy each year with the many different ways he leads on 1511: the

Robotics Board of Representatives, Robot Controls Subteam Leader, leading the team food collections, and spearheading a large effort to write a children's STEAM book. He plans to pursue a career in animation to combine his natural artistic talent with his technical expertise. His passion for FIRST keeps him involved at all levels, and we're sure he will always be a lifelong member.



## **DEAN'S LIST NOMINEE: ALEX FABRIZI**



Alex is an enigma. He is thoughtful, asks many insightful questions and he is kind to everyone he meets. He is quiet and reserved, but he is always leading and teaching others in his own way, which is

part of what makes him a major contributor to 1511.

His passion about 1511 and *FIRST* is rooted in his core. He is a *FIRST* legacy student, coming up from FLL. His older brother was on 1511 so he became a junior member, welcoming veterans home from Honor Flight, attending FLR and Ruckus, baking cookies for the team and helping with our International Potluck dinner.

Alex still remains involved in FLL and FTC. He volunteers at the Penfield FLL and FTC qualifiers, spending many weekend hours setting up and tearing down the events.

When it comes to the robot, Alex is all in, being an integral part of the design, build and programming. He logged 242 Build Season hours in his first year, the most of any new student! He has currently logged 185 hours, the most of any student this year. He creates professional-level Inventor CAD drawings that get sent to our main sponsor, L3HARRIS, for manufacturing. He looks for new ways to enhance his skills, such as attending our Friday night Advanced CAD classes. He is proficient in all shop machinery and tools (lathe, mill, bandsaw, drill press) making many parts himself. His precision is notable, making sure that the mill is lined up to a thousandth of an inch.

Last year, he prototyped hatch mechanisms and made a majority of the drive base parts, even the bumpers. This year he is co-leading the Hang Subteam. He has been part of the Programming subteam the last 2 years and knows multiple languages like C++, Python and ROBOTC. At our robot repair sessions, he helps make our older robots better for demos, like upgrading 2017's shooter to eliminate jamming and improve agitation.

Alex is also a core member of the Strategy subteam. He excels at analyzing the game rules and understanding all of their intricacies. He was the first to get a 100% on 1511's game manual test, less than 24 hours after the test was released, and a full 2 days before anyone else. At competition last year he was on our Pick List team as a Super Scouter, where he was an expert on the other robots at competitions. He scouted during all qualification matches at each of our events, helping our team make Finalists at the Montreal Regional last year! Due to his hard work ethic and strategic knowledge, he was selected to be a member of our Secondary Drive Team this year. In this high-pressure role, he is engaged in driver training and is prepared to represent the team on the field.

His secret talent is teaching. He mentors 1511 students in Inventor CAD and repairing the robot, as well as assisting them in scouting. He is welcoming to all new students, answering their questions, teaching them about GP, and sets an example by also being a Gracious Professional.

Outside of the shop, Alex participates in numerous 1511 robot demonstrations, promoting FIRST to thousands in attendance: L3HARRIS, Rochester Maker Faire and Imagine RIT. He helped promote FIRST to our school as a referee at the Robot Cage Match where PHS teachers and administrators competed with our robots to help spread FIRST in our school. He lends a helping hand at many community events: water station at the Marathon, Leukemia and Lymphoma Society walk, and collecting food donations for the Penfield Food Shelf and Ronald McDonald House. He volunteers at 1511's major events: Rah Cha Cha Ruckus offseason, Week 0 Scrimmage and Trivia Night, our newest community fundraiser. He does all of this while maintaining a 3.7 GPA and taking multiple AP and Honors courses.

Alex credits *FIRST* for helping him discover his passion for STEM and directing his career path as either a mechanical or software engineer. He plans to stay involved with *FIRST* after he graduates by volunteering and eventually mentoring FRC. We credit Alex's commitment and initiative for making 1511 a stronger student-led team!



## **WOODIE FLOWERS ESSAY: ROSEANNE KHALEEL**



Without Roseanne, 1511 would be a dramatically different team. Because of her, we have a better design process, we are more sustainable in our school, and she makes us feel valued. Her passion and drive

for STEM and *FIRST* inspires us to work hard to be the best that we can be.

Logging over 250 hours during build season (more hours than she works!), she takes charge through robot design and build while effectively managing our robot design binder, improving our team-wide communication and generating student autonomy. Having a mentor that treats us like family is special. Roseanne takes the time to get to know us individually and we can count on her to be the first one to know us by name. No matter their learning style or level of experience, Roseanne includes every student. For visual learners, she uses her skills as an architect to draw out problems. For others, she walks them through the process step-by-step, answering questions along the way.

Roseanne recognizes everyone's potential and feels it is important that we get firsthand leadership experience, so she assigns leadership roles to students and guides them at integration meetings. She teaches us how to effectively communicate between subteams to ensure robot construction goes smoothly. To help us analyze designs for our robot and determine which is most feasible, she taught us about weighted objective tables, which is now a vital part of our design process.



But she doesn't stop at our team!

Her devotion to *FIRST* brought her across the globe to China to mentor FRC students in the 2017 *FIRST* China International Invitation! While there, she helped students build an FRC robot for an offseason event. They won! Roseanne inspired the creation of 2 FRC teams and she arranged remote mentorship of both teams, setting up a WeChat to give 1511 students the opportunity to mentor and network with these students.

Her care for the future of 1511 shines through the work she has done with the school district as part of the Robotics Board of Representatives (RBR). She pioneered the effort to document team policies that are in line with school policies to allow 1511 to have the freedom to grow. We're grateful for the time she devoted to ensuring the team's sustainability.

Roseanne organizes a Judge Bed & Breakfast for judges that come to the Finger Lakes Regional. The initiative removes economic boundaries for traveling judges. As a devoted *FIRST* volunteer for the past 8 years, Roseanne has volunteered and judged at many *FIRST* competitions from FLL qualifiers to FRC Champs, always wearing her 1511 camo pants.

Roseanne brings so much more to the team than a simple mentorship and helps us in ways that are not obvious, like her annual financial contribution to the team as a Patron.

Donning her Rosie the Riveter-style headband, she is our Rosie: strong and determined, showing us that anything is possible.



# **COMMUNITY OUTREACH**



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**Ronald McDonald House Sale Unloading** 





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**NYS Fair** 



Spencerport Robopalooza



**Brownie Robotics: Programming Robots** 



Penfield's Independence Day Parade

# **DEMOS (CONT.)**





**Maker Faire** 



Cage Match



**Cobbles Science Night** 



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**RIT Girls in STEM Fair** 

# FIRST INVOLVEMENT



Penfield and Gates FLL Summer Camps





FLL Finger Lakes Qualifier









FLL Jr. Help Sessions



# **ADVOCACY/SPREADING** *FIRST*

## NY State School Boards Association's Annual Convention & Education Expo.







**Milken Knights Virtual Robot Showcase** 

#### esentation Order:

36 - The MilkenKnights 15 35 - Galaktech Invaders 74 91 - NoMythic 86 67 - That ONE Team 26 06 - Merge Robotics 55 04 - Brazilian Storm 59 19 - Ladies First 49 
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# PRESEASON















# PRESEASON (CONT.)

















# FUNDRAISING













# **RAH CHA CHA RUCKUS**











# **BUILD SEASON**





















# **BUILD SEASON (CONT.)**





















# **ROCHESTER RALLY**





















# **MIAMI VALLEY REGIONAL**





# MIAMI VALLEY REGIONAL (CONT.)

















# MIAMI VALLEY REGIONAL (CONT.)





















# **COVID-19 RESPONSE**

While it was a disappointment when *FIRST* suspended the season and cancelled both *FIRST* Championships, we are proud of this team and all the accomplishments we had this season. We earned the Chairman's Award, produced an awesome robot, learned a lot, and had fun!

How did we move forward? By doing all we could as a team to give back to our community and our small business sponsors, to aid and support those working the front-line during COVID-19, to continue to spread the *FIRST* message and more!



Providing doctors and nurses on the front lines meals using local small businesses



3D printing and distributing face shields and mask straps to the medical community



We Can Robot – a series of short videos to educate and excite elementary age students about robotics and STEAM on YouTube.

FUNDRAISE & FOOD GAME NIGHT APRIL 10 & 11 Join neighbors, friends and other area families as we raise money for our wonderful local businesses who are struggling at the time. we will be having an online family game night. Donate to play byTuesday night, order dinner locally on game day, then gather the family to play! Your money will go directly to helping both small businesses and healthcare workers!

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A Community Kahoot! Game to help families in the community connect (and raise money to support local small businesses and front-line workers)













## **REPRESENTATIVE BOARD OF ROBOTICS**

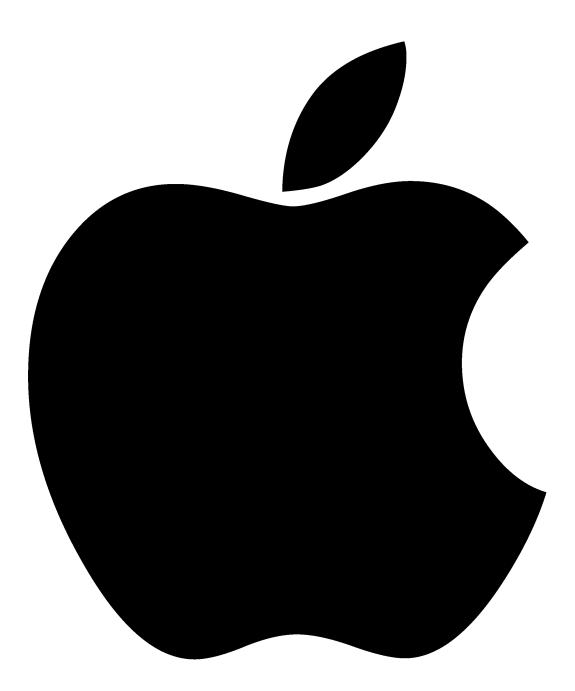
Students Kyle Berg, Jadon Blaakman, Nevin Woodside Parents Matt Jewett, Amy Leute, Michelle Woodside Mentors Amy Averill, Cynette Cavaliere, Hugh Hastings Teachers Ralph Pizzo, David Weisbrod

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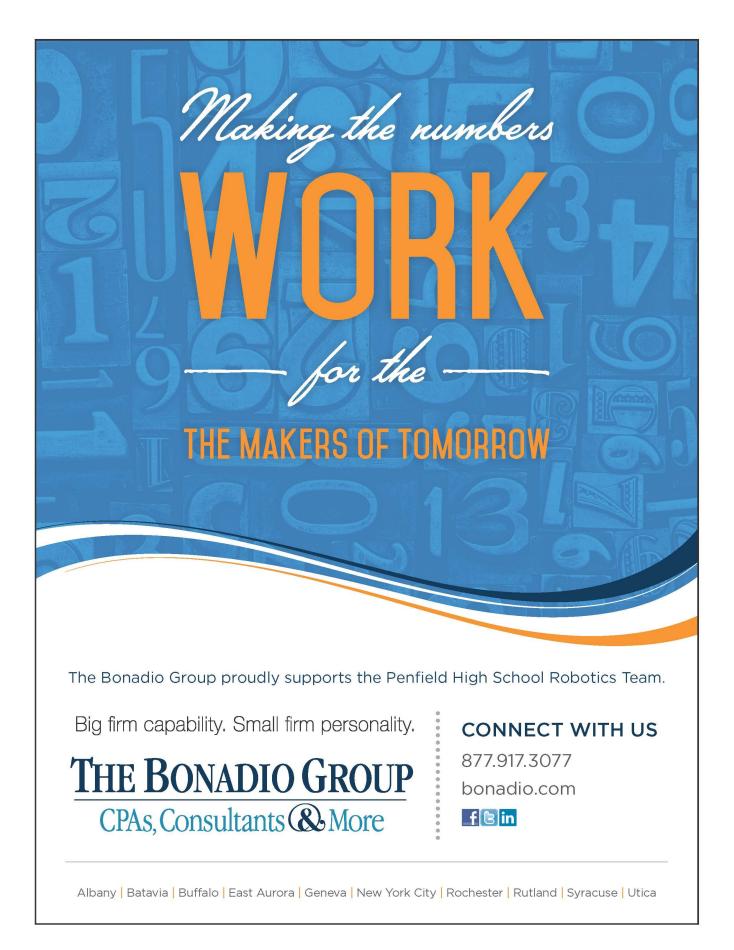
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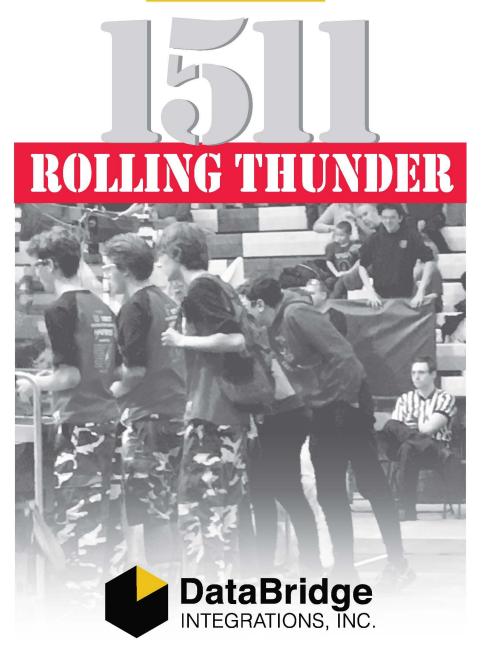


# CONGRATULATIONS SENIORS



Best wishes for the future! Tom and Cynette Cavaliere





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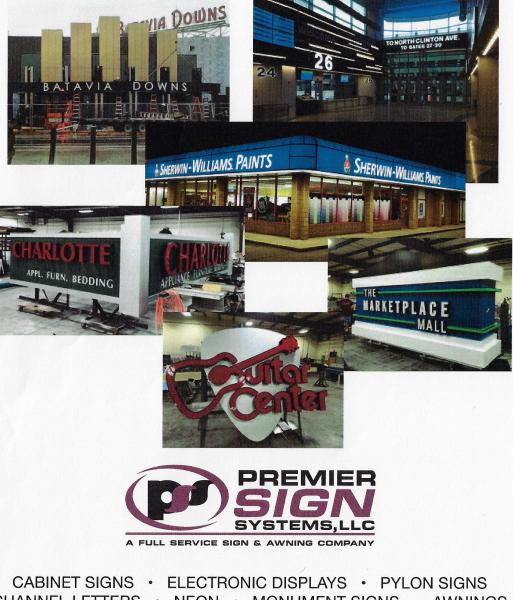
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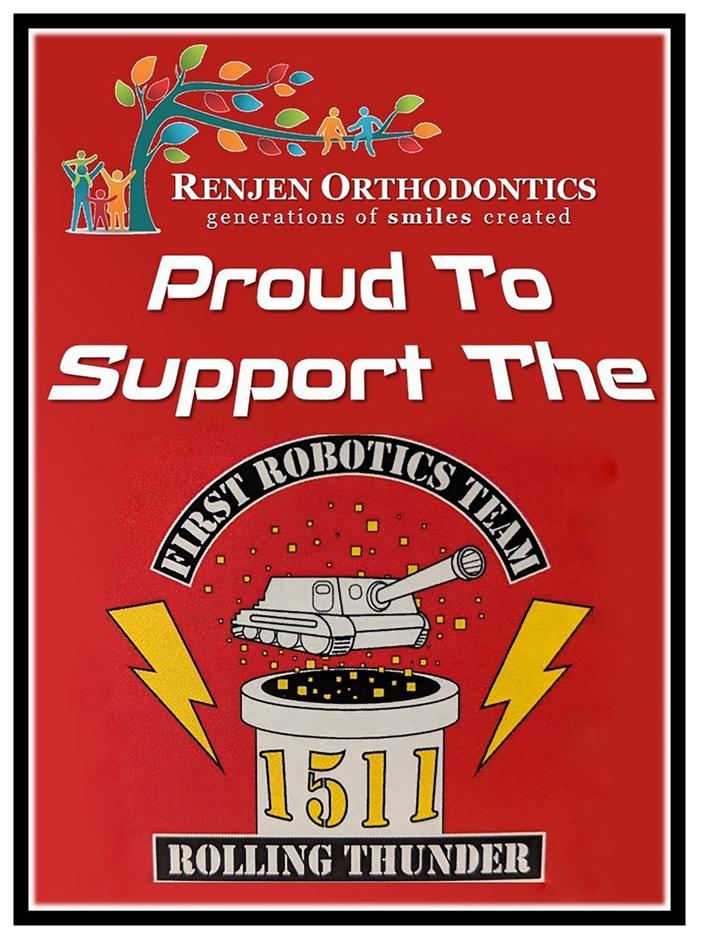
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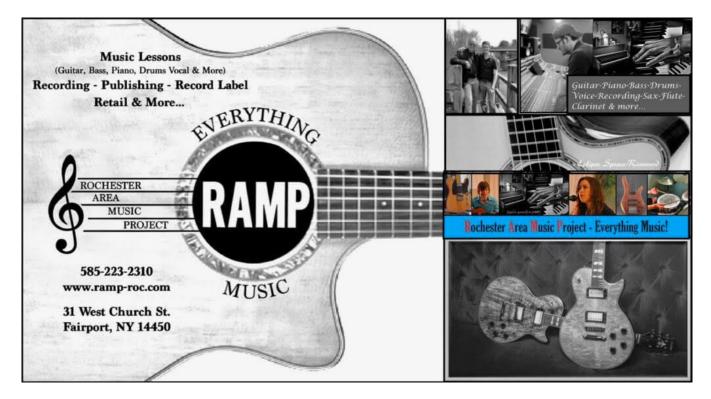
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