ATX Robotics, Inc.

2019 ANNUAL REPORT

Letter from the President

It is with great joy that we close out our third year of ATX Robotics. We continue to meet our goal to provide opportunities for all students to participate in robotics, not just those who attend large, well-funded high schools.

Because of one student's initial spark of interest in joining a robotics team, ATX Robotics, Inc. was born. Since then, ATX Robotics has grown from the mere idea of a robotics team to sponsoring two separate and diverse STEAM programs serving students ages 6-18.

Tomorrow's leaders will be those who feel equally at ease with and conversant in technology, science, and business. ATX Robotics nurtures the symbiotic relationship between these three areas and empowers kids to know that: they can fix it, they can figure it out, they can experiment, they can look it up, they can collaborate, they can design it, they can build it, and they can understand it.

As we look ahead to 2020 with these goals in mind, I invite you to join us in our mission to inspire our next generation of innovators and entrepreneurs.

Evan Marchman

Evan Marchman, President
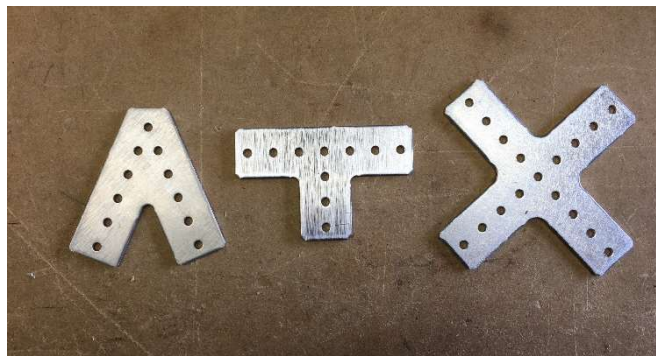
Our Mission

The mission of ATX Robotics is to provide quality extracurricular programs to pre-college students of all ages in the Austin area, regardless of their educational status or ability. Our organization is particularly focused on providing access to robotics competition teams to students who are otherwise ineligible to participate due to not being enrolled in a traditional school.

We provide students the opportunity to work shoulder-to-shoulder with volunteer professional engineers and business people to collaborate in hands-on activities designed to foster interest and to promote education in science, technology, engineering, art, and mathematics (STEAM).

ATX Robotics is organized as a nonprofit in the State of Texas and is a recognized 501(c)(3).

Program Summary

- Howdy Bots:
    - Students logged over 464 hours each in hands-on STEAM learning during the 16 weeks of the busy seasons.
    - Exposed thousands of students to STEAM and STEAM careers
    - 79% of our students are more interested in a STEAM career after participating in Howdy Bots
- North Austin Science Alliance (NASA):
    - Each week, students conducted hands-on science experiments, visited with guest speakers, and attended enrichment field trips
    - Strong showing in Science Olympiad, Science Bowl and Science Fest events

Financials

Statement of Activities - Year Ended May 31, 2019

Revenues:

Beginning Balance:	$17,046
Contributions – Corporations	$24,275
Contributions – Individuals	$22,438
Grants	$18,500
Membership Dues	$6,750
Misc.	$15
Contributions-in kind	$5,586
Total Revenues:	**$94,610**

Expenses:

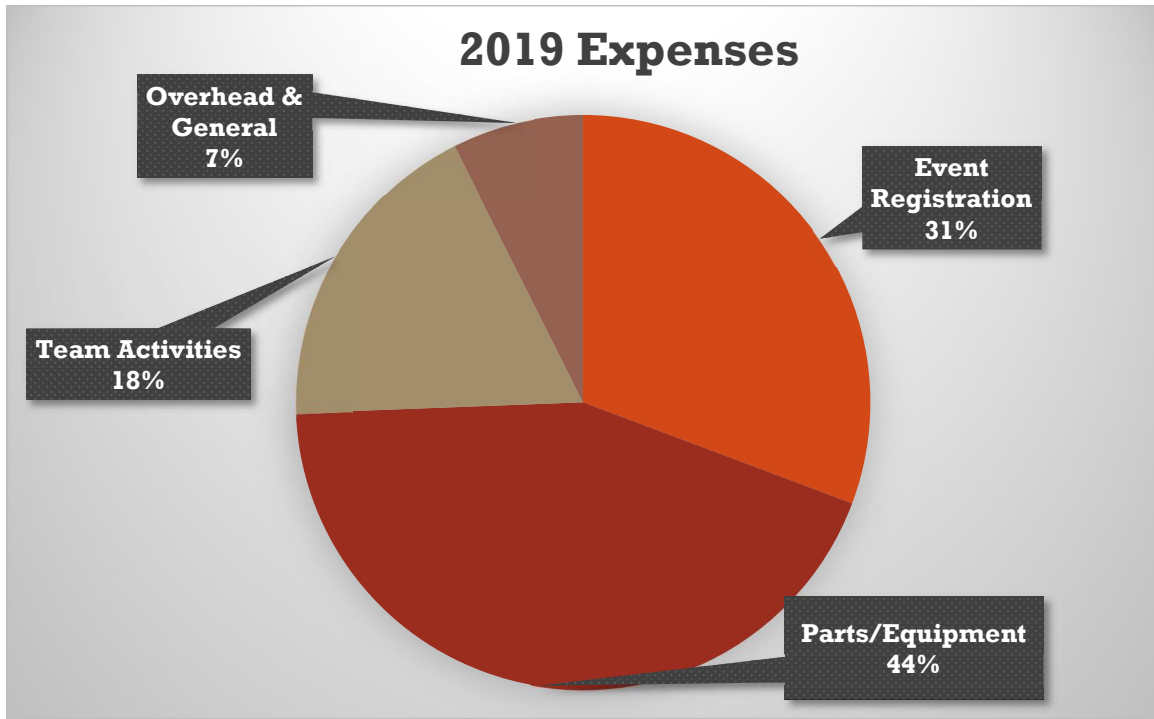|	
Event Registration	$15,390
Parts/Equipment	$21,885
Team/Student Marketing Projects[1]	$2,095
Supplies	$1,268
Field Trip Fees	$241
Travel & Meals	$4,600
Leases & Rentals[2]	$1,809
General Overhead[3]	$1,904
Fundraising Expense[4]	$396
Shipping/Postage	$37
Refunds	$110
Depreciation[5]	$798
Total Expenses:	**$50,533**

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[1] Includes team t-shirts, banners, Howdy Bots' pit
[2] Space rental and trailers for competition
[3] Includes insurance
[4] Includes PayPal fees
[5] Trailer depreciation

2019 Expenses

Overhead & General 7%

Event Registration 31%

Team Activities 18%

Parts/Equipment 44%

Statement of Financial Position - Year Ended May 31, 2019

Assets:	
Cash	$39,290
In-kind trailer (equipment)	$4,787
Total Assets:	**$44,077**
Liabilities:	
Cash	$0
Total Liabilities:	**$0**
Total Liabilities and Assets:	**$44,077**

Our Accomplishments

Howdy Bots FRC Team 6377

The Howdy Bots FRC Team 6377 had a successful third year season.

We visited homeschool and community school groups targeting K-12 students where kids were able to interact with the robot and hear about our team, *FIRST*, and STEAM. We

also attended the 2018 Maker Faire Austin at the Palmer Events Center where we shared STEAM with thousands of attendees. Our favorite events of the year were being the featured non-profit at a Round Rock Express baseball game, and performing the halftime show again for the Austin Spurs in November of 2018 for over 5,000 central Texas students during their STEM matinee game.

Off-season also included a focus on fundraising efforts and connecting with our local community. All students spent time helping to organize our first annual old-fashioned telethon. Students created video content, hosted the live stream and answered donor phone calls. Most of the kids even found producing the Howdy Bots Telethon was one of their favorite off-season activities, and that they gained a lot of confidence from the interactions, as well as new skills. We were able to bring in over $11,000, and the students gained an enormous amount of valuable experience.

The Howdy Bots attended two off-season competition events, competing with our 2017 competition robot, and we tested out new drivers. Between these two events and all our outreach events, we recruited several new students. The rest of our off-season months were spent bringing our new students into the Howdy Bots family, training them on safety and tools, and getting everyone ready for FRC Kick-off Day.

January 5, 2019, finally rolled around and it was Kick-off Day, the day FRC teams from all over the world come together to learn what the new game is going to be. Our team met with several other area teams at Dripping Springs High School to watch the big game reveal streamed live.

From the moment the new game was revealed we only had six weeks to design and build our 120 lb. competition robot before we had to put it in a bag and not touch it anymore. During just those few short weeks, each student would put in over 400 hours of STEAM "learning and doing" time. We even ate meals together at the shop, so we could keep working. Not only were our technical teams working hard, but our business teams were putting together a stellar pit and marketing strategy. By "Stop Build Day" on February 19th, we had a fully functioning robot ready to go.

The Austin District Competition on March 1-3 was our first competition event. We finished the qualification matches as the first seeded team going into alliance selection. We finished the elimination rounds as semifinalists and won the Creativity Award for our innovative suction cup mechanism for climbing a difficult, high-level platform.

The Del Rio District Competition March 22-24 was our second event of the year. Again, we played very well, finishing the qualification matches as the second seeded team. Our alliance went on to win the competition, and we were again awarded the Creativity Award.

Both of our previous district events qualified us for the State Championship. Not only did we earn enough district points to qualify for the World Championship, but we ended as semifinalists and won the Imagery Award, recognizing our students' marketing efforts.

The FIRST Championship isn't a normal competition- it's a massive celebration of FIRST and robots. While a typical district event holds about 30 teams, Champs has 400 FRC teams competing. It is so huge that it is split into 6 divisions with around 70 teams each. The winning alliance of each division moves on to a round-robin, and the top 2 alliances of those 6 play a best-of-3 finals match in Minute Maid Park.

Our students enjoyed being able to meet so many other teams from all over the USA, and even around the world, includung teams from Mexico, Israel, India, China, and Australia.

While at Champs, our students participated in the Solidworks Challenge contest by creating specified video content, and we were able to win a 3D printer for our team.
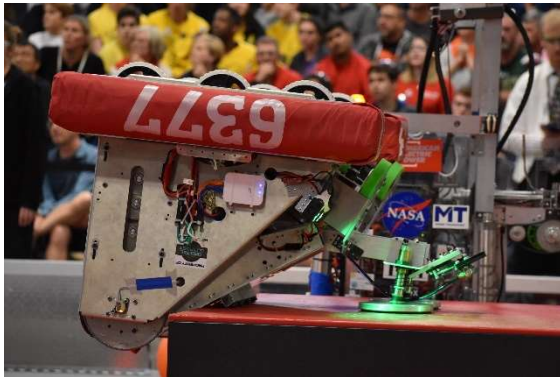
After two long days of qualification matches, in the eliminations, we partnered up with 2930 Sonic Squirrels, 5012 Gryffingear, and 3478 Lambot. Although we were eliminated in the quarterfinals, we're extremely proud of our performance throughout the competition. We were one of the highest scoring bots on the Turing field with an OPR of 32.92, and our climb worked every single time we deployed it.

At the beginning of the year, we set three goals for ourselves – Qualify for Champs, win an award at every district event, and grow our team's reputation. We are proud to say that we were able to accomplish every goal we set, and more. We cannot thank our sponsors, donors, and parent supporters enough for making this year possible. We learned more than we imagined possible and can't wait to do it again!

AWARDS WON

2019, World Championship Quarterfinalists Turing Division
2019, SOLIDWORKS Challenge Winners
2019, State Championship Semifinalists
2019, State Championship Imagery Award
2019, Del Rio District Winners
2019, Del Rio District Creativity Award
2019, Austin District Semifinalists
2019, Austin District Creativity Award
2019, Austin District First Seed

OFF-SEASON EVENTS

2018 Texas Robot Invitational Finalists
2018 Texas Robot Round-Up Co-host

VOLUNTEER EVENTS / COMMUNITY IMPACT

2018 Austin Spurs Half-time STEM show: demo in front of 5,000 middle schoolers

2018 Round Rock Express Featured Non-profit: minor league baseball game demo and on-field interview.
2018 Homeschool Happenings Participant: activity fair for homeschoolers
2018 Maker Faire Austin Participant
2018 We mentored two rookie teams: Teams 6896 and 7093.

North Austin science Alliance (NASA)

It's been a busy year for NASA. Our Science Olympiad team competed at the UT Regional tournament in February and placed 4th. This finish earned us an invite to the State Science Olympiad event, our 4th in 5 years! We are so very proud of our young team. Only a few of the kids were returning Olympiad veterans; the remainder were all first-year newcomers. The kids really stepped in and stepped up, showing amazing levels of enthusiasm and commitment. The State Olympiad final was held May 3-4 in A&M in College Station, and NASA earned a top 10 finish with numerous medals and personal bests.

With Science Olympiad finished for this year, we've already begun ramping up for next season, and new member recruitment is underway.

NASA had several entries at Science Fest, the Austin Energy sponsored science fair held in February that draws kids from hundreds of schools around Central Texas. It was a great experience for the kids, who all placed either first or second with their projects.

As usual we had a full array of interesting classes this semester including quite a few Olympiad-focused round tables and study groups designed to hone specific event skills. Multiple dissections for our anatomy lessons, special mapping and topographic sessions, physics and circuits workshops, a bacterial culture and identification lab, and fossil / geologic history lessons are just a few of the areas we covered during meetings.

The team attended a field trip at Inner Space Cavern in March, and our guest speakers in April were from All Things Wild (a wildlife rehab organization) who visited with baby opossums – which are ridiculously cute by the way!

On May 6th we hosted an Open House event and were fortunate to have members of the UT Science Olympiad Alumni Association visit to speak with prospective members and parents about both the long- and short-term benefits of Science Olympiad competition. Another Open House later in the year is a possibility in addition to our on-going social media and word-of-mouth recruiting efforts.

Going forward, we hope to host several team-building events over the summer as well as develop a plan that allows flexibility for any teens who want to join our high school division but need a creative approach to balance science team with their fall schedules. With parental and mentor support from biologists, geologists, physicists, engineers, programmers, nurses, and others, our skills toolbox is getting bigger which translates directly to even stronger instruction for our competitive students. We are looking forward to hitting the ground running next season.
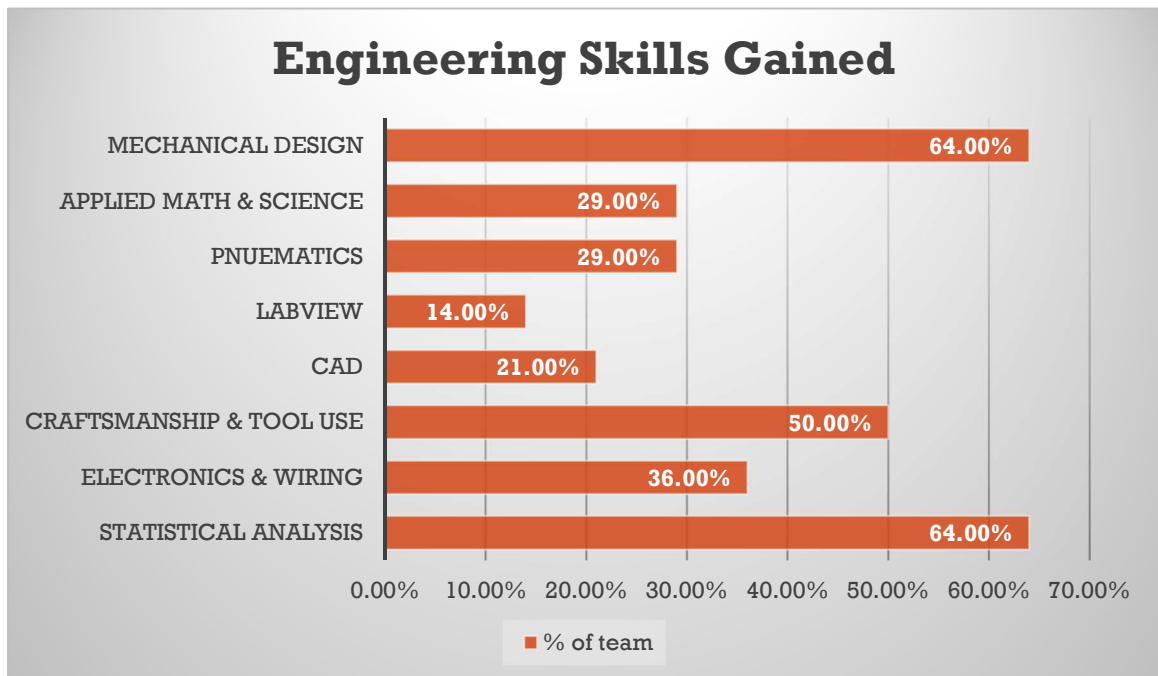
Impact: Howdy Bots

At the beginning and end of each season, Howdy Bots students evaluate their experience through our Entrance and Exit Surveys. Results provide the mentors and the ATX Robotics board with useful feedback regarding areas of success, knowledge gained, and opportunities for improvement in each program.
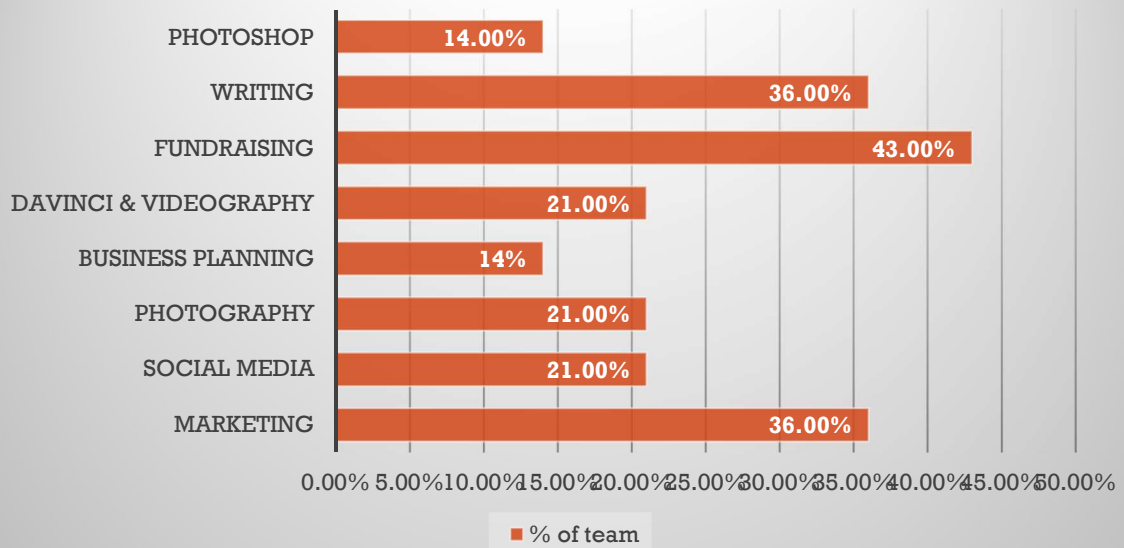
Full survey results are available upon request. Here are some highlights.

14 students averaged 464 hours of STEAM learning each during the 16 weeks of our busy season. That's not counting any extra meetings, open shop hours, or homework. Howdy Bots is intense, hands-on, and a huge labor of love for the mentors and students alike.

Engineering Skills Gained

Skill	% of team
MECHANICAL DESIGN	64.00%
APPLIED MATH & SCIENCE	29.00%
PNUEMATICS	29.00%
LABVIEW	14.00%
CAD	21.00%
CRAFTSMANSHIP & TOOL USE	50.00%
ELECTRONICS & WIRING	36.00%
STATISTICAL ANALYSIS	64.00%

■ % of team

Business Skills Gained

Skill	% of team
PHOTOSHOP	14.00%
WRITING	36.00%
FUNDRAISING	43.00%
DAVINCI & VIDEOGRAPHY	21.00%
BUSINESS PLANNING	14%
PHOTOGRAPHY	21.00%
SOCIAL MEDIA	21.00%
MARKETING	36.00%

Soft Skills Gained

Skill	% of team
GRACIOUS PROFESSIONALISM	93.00%
CONSENSUS BUILDING	79.00%
PUBLIC SPEAKING	64%

Career Goals

- Engineer 33%
- Programmer 8%
- Undecided 25%
- Scientist 17%
- Business 17%
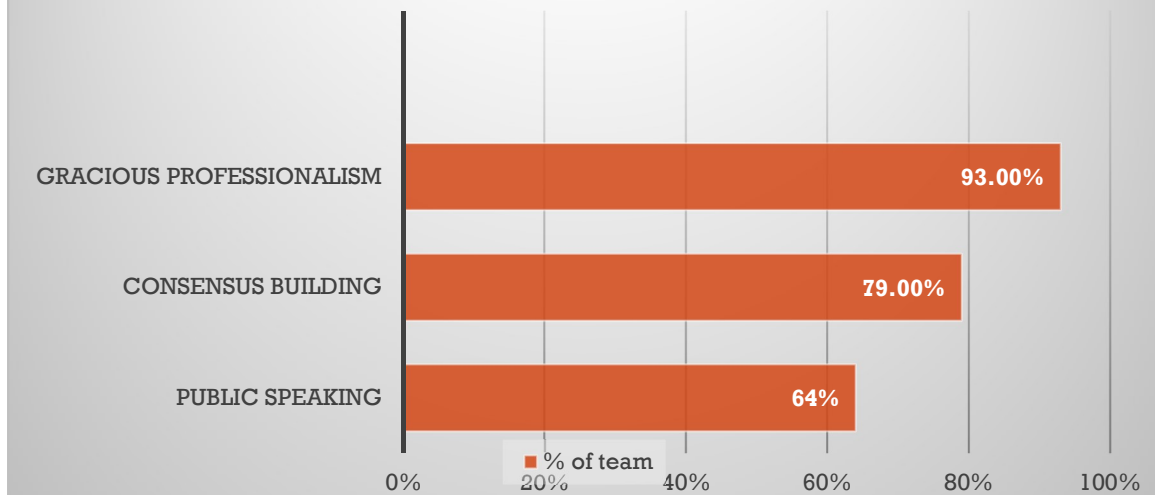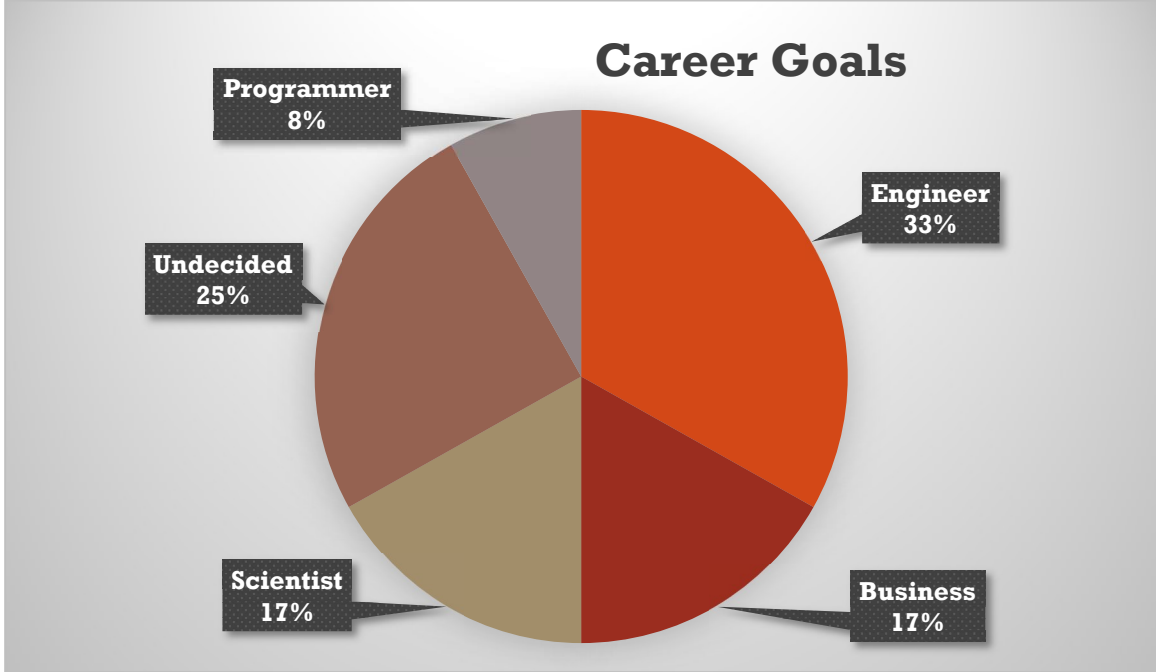
From the students:

"I learned lots of mechanical things I didn't know before, how to better speak to adults, and how to better collaborate with a semi-large group of people."

"I learned how to apply logic systems and use state machines to solve real world problems."

"I used to be scared to talk in or present in front of a large amount of people, [but] through my experiences at demos I have gotten over that fear and it is now something that I enjoy!"

"This program inspired me by helping me learn things that I wouldn't have access to otherwise. Things like using power tools and learning CAD. These helped me solidify my love for engineering."

Howdy Bots Sponsors

"Above the Law": Multi-year commitment

Sheriff: $10,000+
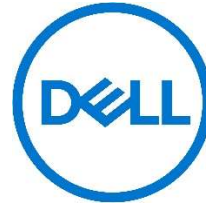

Marshall: $5,000-$9,999

Deputy: $2,000-$4,999

DONORS

"Thank you for helping us successfully tackle Year 3; notoriously a 'make or break' year for FRC teams."

Taylor Marchman & Eric Schultz	Brittany Nevins	Rachel Chamberlain
Tracy Gamble	Susan & Erling Holey	Joseph Langlinais
Chris & Alyssa Hedge	Eric Schultz	Bettye & David Hobbs
Gay Tomas	Sue Wiley	Ellen Pearson
Alan & Jane Nevins	Gary Adams	Jean Jenkins
Chris & Tara Cherry	Jesse Moore	Deb Barry
Diann & Rusty Marchman	Cherie Kitterman	Hillary & Alex Granda
Dawn Perry	Christi Sanchez	Craig Watson
Olga Andreeva	Laura Irani	Bob Watson
Madeline Langlinais-Mitchell	Inez Vanderburg	Sheila Smith
Josie Ochoa	Melissa Skiles	Kevin Lam
Jennifer & Alan Harrand	Lisa Griggs	Taylor Marchman
Monica Lee	John & Cathy Pearson	Alyssa Hedge
Dawn Loughlin	April Aguren	Curt McNamee
Karol Pink	Gay Thomas	Patricia Spivey
Joyce Stamatis	Laura Faulkner	Pamela Havel Moser
Randolph White	Emonique Fairley	M L Blume
	Bryan Havel	Joseph Schultz
	Susie Nagel	Keri Gerber
	Catherine Robinson	Terry Leamy

Jessica Rowland   Susan Salch   Rob Shelton
Trent Griggs   Paul Chamberlain   Susie Nagels
Jeff & Pam Autrey   Robin Owens   Honey Habingreither
Christy Parks   Jeff & Sharon Hobbs   Laurence Prodel
Kenneth Chackes   Austin Page   Tommy Tomaszewski

Board of Directors

ATX Robotics is overseen by a Board of Directors that is actively engaged in strategic planning for the growth of Howdy Bots and the addition of more teams, in relationship development, and in community involvement with the aim of promoting STEAM. All of the board members are leaders in their respective fields and organizations, representing engineering, business, and education.

Evan Marchman founded ATX Robotics in 2016, and is the President of ATX Robotics. Additionally, he serves as the Head Coach for the "Howdy Bots" and lead technical mentor. He has worked as an engineer for over twenty years in the Austin tech community and is currently Director of Applications Engineering at Advanced Micro Devices (AMD). Mr. Marchman holds a Bachelor of Science degree in Electrical and Audio Engineering from the University of Miami, Coral Gables, FL, and has three children who have been previously homeschooled and currently attend public and charter schools.

Ezana Haile is the Secretary for ATX Robotics and currently serves as a technical mentor for the Howdy Bots. Additionally, he mentored several robotics teams over the years, including FLL and FRC teams. Mr. Haile is an Electrical Engineer with 18 years of experience in analog/digital circuit design and hardware/software/firmware design and development as Principal Applications Engineer at Microchip Technology, Inc. Mr. Haile holds a Bachelor of Science degree in Electrical Engineering from St. Mary's University in San Antonio, TX.

Lisa Griggs is the Treasurer of ATX Robotics. She holds a Bachelor of Science degree from Texas State-San Marcos and has been homeschooling her 5 children for the past 14 years. Mrs. Griggs has previously worked as a database developer and technical writer in the Houston and Austin areas, but since 2014 she has been the co-founder of a small business, along with her husband of 24 years.

Peter Anzalone is a Board Member of ATX Robotics and is active in the Austin Startup Community. A 30-year veteran of the telecommunications industry and founder of three engineering companies, he brings a diverse skill set to both ATX Robotics and the Howdy Bots. Mr. Anzalone holds a Bachelor of Science degree in Communications from the University of Texas at Austin, and is the proud father of two grown children.