



# **ATX Robotics, Inc.**

**2018 ANNUAL REPORT**

## Letter from the President

It's hard to believe that it has only been 2 years since a single 13-year-old student dreamed of being on a robotics team.

Because of that one student's initial spark of interest, infectious enthusiasm, and creative tenacity, ATX Robotics, Inc. was born. Our initial goal was to provide opportunities for all students to participate in robotics, not just those who attend large, well-funded high schools. Since then, ATX Robotics has grown from the mere idea of a robotics team to sponsoring two separate and diverse STEAM programs serving 83 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 2019 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

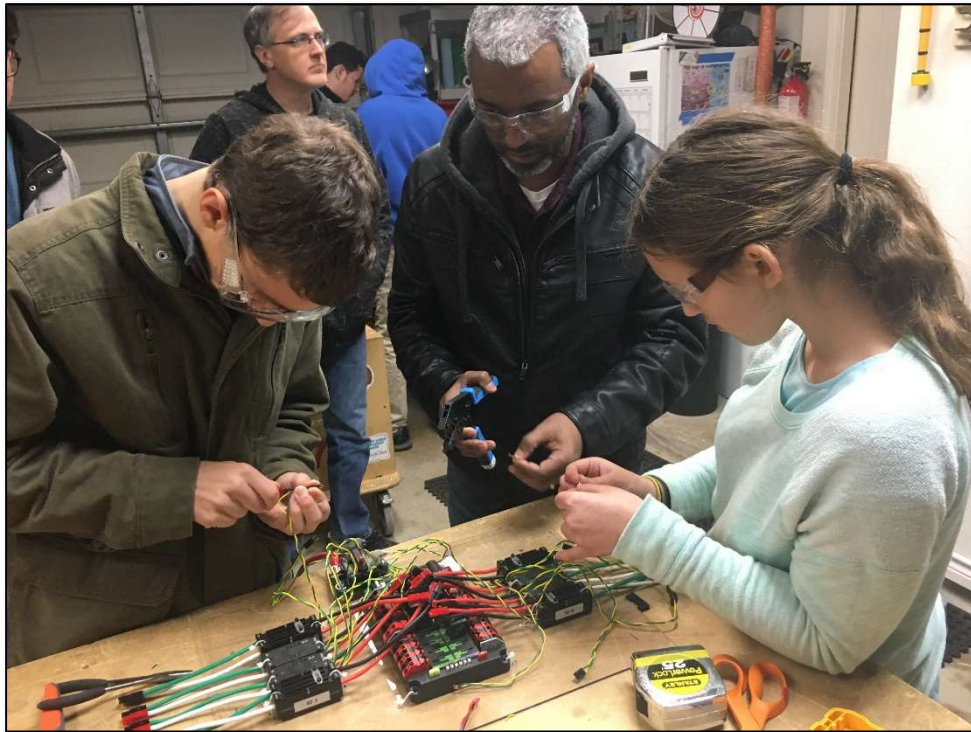


## Our Mission

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).



## Summary

- Grew from serving 14 students in the beginning of 2017 to 2 programs serving 84 students at the end of 2018
- Howdy Bots accomplishments:
  - Lone Star Central Regional Winners
  - Imagery Award
  - Newton Division Finalists at FIRST Worlds Championship
  - Students logged over 200 hours each in hands-on STEAM learning during the 6 weeks of Build Season
  - Exposed thousands of students to STEAM and STEAM careers
  - 72% 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
  - 66% of our students are more interested in a STEAM career after participating in North Austin Science Alliance (NASA)



## Financials

### Statement Of Activities - Year Ended May 31, 2018

#### Revenues:

Beginning Balance:	\$74.81
Contributions – Corporations	\$9,496.90
Contributions – Individuals	\$26,611.36
Grants	\$15,500.00
Membership Dues	\$4,836.05
Misc.	\$27.00

**Total Revenues: \$56,546.12**

#### Expenses:

Event Registration	\$15,465.00
Parts/Equipment	\$11,864.17
Team/Student Marketing Projects <sup>1</sup>	\$2,811.18
Supplies	\$1,792.45
Presenter Fees	\$250.00
Travel & meals	\$3,592.44
Leases & Rentals <sup>2</sup>	\$1,272.93
General Overhead <sup>3</sup>	\$2,178.31
Fundraising Expense <sup>4</sup>	\$273.64

**Total Expenses: \$39,500.12**

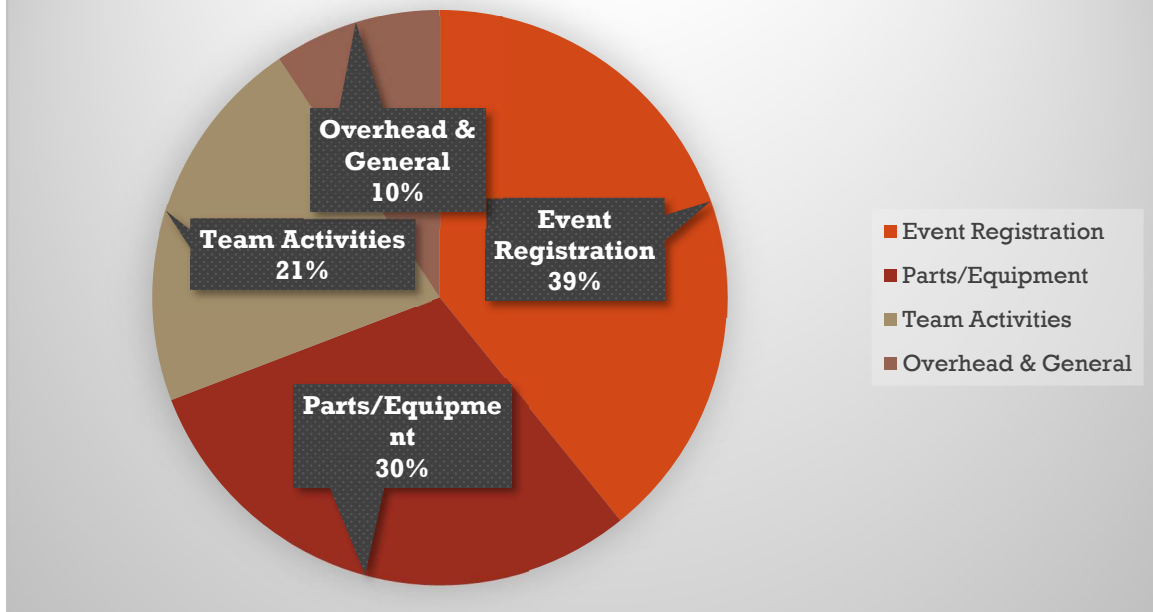
<sup>1</sup> Includes team t-shirts, banners, Howdy Bots' pit

<sup>2</sup> Space rental and trailers for competition

<sup>3</sup> Includes insurance

<sup>4</sup> Online auction fees and PayPal fees

## 2018 Expenses



### Statement Of Financial Position - Year Ended May 31, 2018

<b>Assets:</b>	
Cash	\$17,046.00
<b>Total Assets:</b>	<b>\$17,046.00</b>
<b>Liabilities:</b>	
Cash	\$0.00
<b>Total Liabilities:</b>	<b>\$0.00</b>
<b>Total Liabilities and Assets:</b>	<b>\$17,046.00</b>



## Our Accomplishments

### Howdy Bots FRC Team 6377

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

We visited 5 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 2017 Maker Faire Austin at the Palmer Events Center where we shared *STEAM* with thousands of attendees. Our favorite event of the year was performing the halftime show for the Austin Spurs in November of 2017 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 an online auction and visiting businesses to request in-kind donations that we could offer up for bidding. Many of the students were very nervous about approaching adults but were surprised to find that with a little practice, it wasn't so hard. Most of the kids even found that interacting with local businesses was one of their favorite off-season activities, and that they gained a lot of confidence from the interactions. Our online auction was a lot of work, but we were able to bring in nearly just over \$2500, and the students gained an enormous amount of valuable experience.



The Howdy Bots attended two off-season competition events, competing with our 2016 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 6, 2018, 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

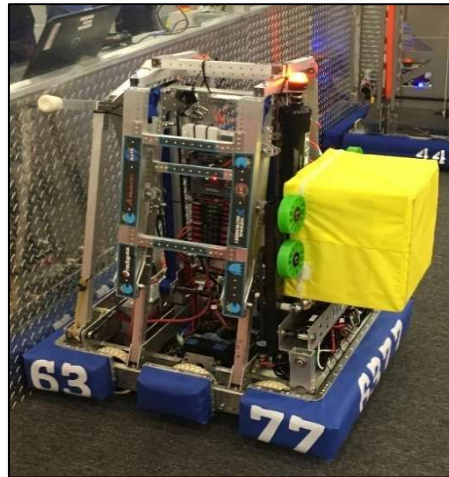


anymore. During just those few short weeks, each student would put in over 200 hours of STEAM “learning and doing” time. We even ate meals together at the shop, so we could keep working. Not only were our technical teams working hard, but our business teams were putting together a stellar pit and marketing strategy. By Stop Build Day on February 20<sup>th</sup>, we had a fully functioning robot ready to go.

Lone Star Central Regional in Houston, Texas on March 15-17 was our first competition event. We did well enough to be the 2<sup>nd</sup> pick team of the 1<sup>st</sup> seeded alliance, and together we went on to win the competition, which qualified us to attend the Worlds Championship in Houston. We also won the Imagery Award for our pit design. This award recognized the quality of our branding and marketing design.

El Paso Regional, the last weekend of March, was our second competition where we ended up making it to the quarterfinals in the elimination matches and got in a lot of drive practice for Champs.

The FIRST Championship isn’t a normal competition- it’s a massive celebration of FIRST and robots. While a typical regional holds 30 to 50 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, including teams from Mexico, Israel, India, China, and Australia.

Every year at Champs, FedEx does a daily Innovation Challenge, where they look for creative responses to STEM-related questions. Our students participated in this contest, and we were able to win \$2,500 for being the Honorable Mention.



After two long days of qualification matches, we ended ranked 46 with a record of 5-5. We ended up being the 2<sup>nd</sup> pick of the 1<sup>st</sup> seeded teams 118 (Robonauts) and 3310 (Black Hawk Robotics), along with 3128 (Aluminum Narwhals), as the backup. Our alliance made it all the way to the final match for our division. We were so close to making it to the final finals! Next year!

We can't 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!



## North Austin Science Alliance (NASA)

NASA had a busy and science-filled year!

Our Science Olympiad teams competed in an Invitational event at Rice University in Houston and the Regional competition here in Austin at the University of Texas. Our middle school team finished 4<sup>th</sup> in our very competitive region and received an invitation to the State Science Olympiad event, finishing 9<sup>th</sup> out of the top 30 teams in the state. Our high school team also finished 4<sup>th</sup> in the region, a strong effort for their inaugural year. Both teams are already excited about next year and have begun preparing for the 2018-2019 season.



NASA represented very well at the Austin Energy Regional Science Festival, with multiple students medaling for their projects. At the Regional Junior Science Bowl competition in College Station, TX, our young team made it through several rounds and showed great persistence coming from behind before the last elimination.



NASA hosted some wonderful guest speakers this spring, including a group of computer science students from UT who discussed Artificial Intelligence, a local beekeeper who brought bees to visit, a hydraulics engineer, and a Boston University professor who Skyped with the high schoolers about the mechanics of and applications for slender structures. Our spring field trip was a caving tour at Ladybird Johnson Wildflower Center.

And as always, thanks to our dedicated coaches and parents, we offered our usual interesting assortment of hands-on labs and activities, some of which included:

- City of Austin watershed pollutants lab

- Polyacrylate and  $\text{NH}_4\text{Cl}$  “snow in a test tube”
- Euler’s formula and buckling calculations
- Geologic mapping
- Precipitates exploration
- UT Physics Roadshow
- Write It Do It (clarity in scientific writing)
- Thermodynamics study
- Frog dissections
- Density lab
- Anatomy & Physiology lectures
- Maze design/build for mechanical hex bugs
- Stomp Rocket design and test



The coaches are already hard at work preparing for next year. Science Bowl practice, Science Olympiad preliminary prep and lesson/activity planning for next season will be ongoing all summer. Here at NASA, it’s all about science!

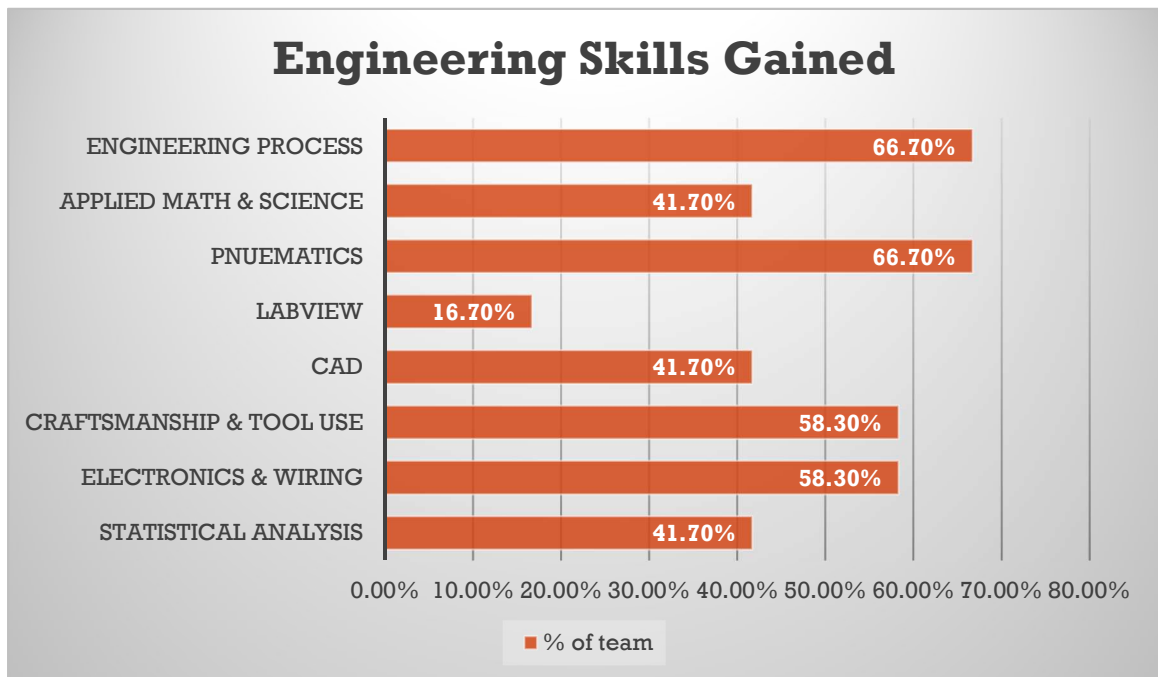
## Impact

At the end of each season, students evaluate their experience through our Exit Survey in order to provide the mentors and the ATX Robotics board with useful feedback regarding areas of success, knowledge gained, and opportunities for improvement in each program.

All ATX Robotics students took an Exit Survey in May 2018. Full survey results are available upon request. Here are some highlights.

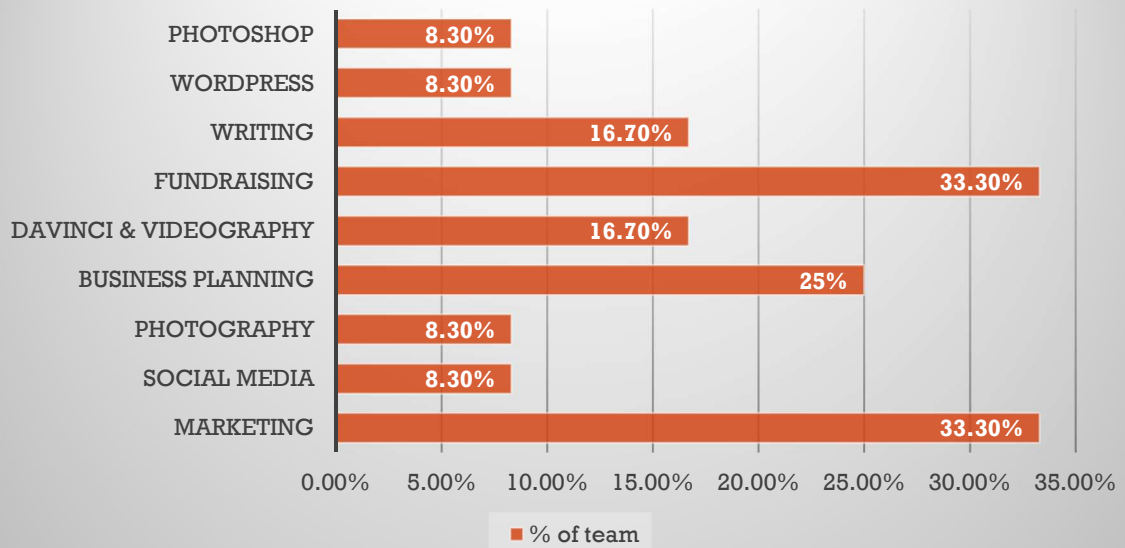
## Howdy Bots

12 students averaged 200 hours of STEAM learning each, just during the 6 weeks of the 2018 build season. Howdy Bots is intense, hands-on, and a huge labor of love for the mentors and students alike.

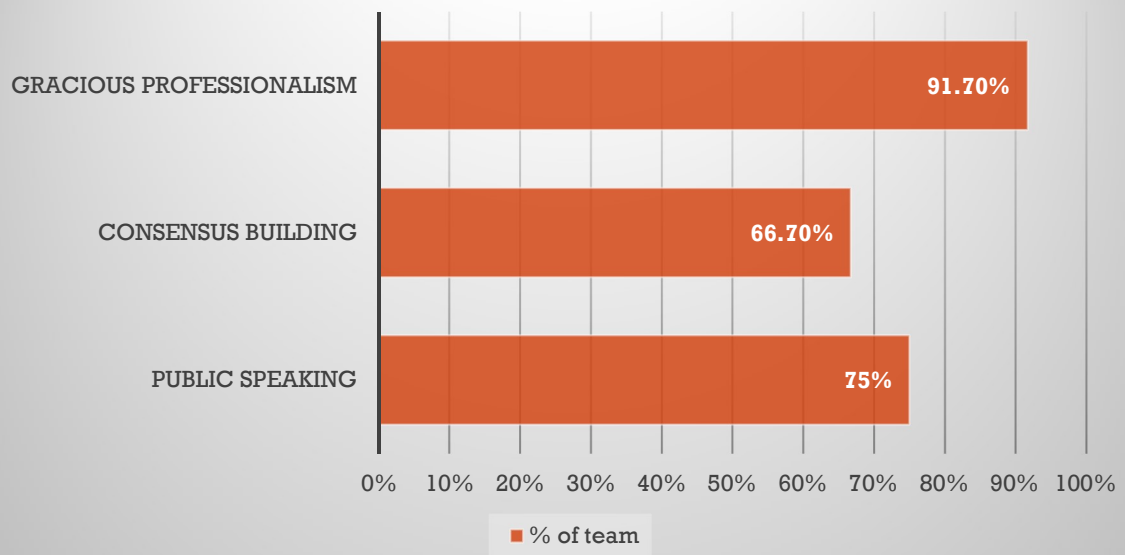




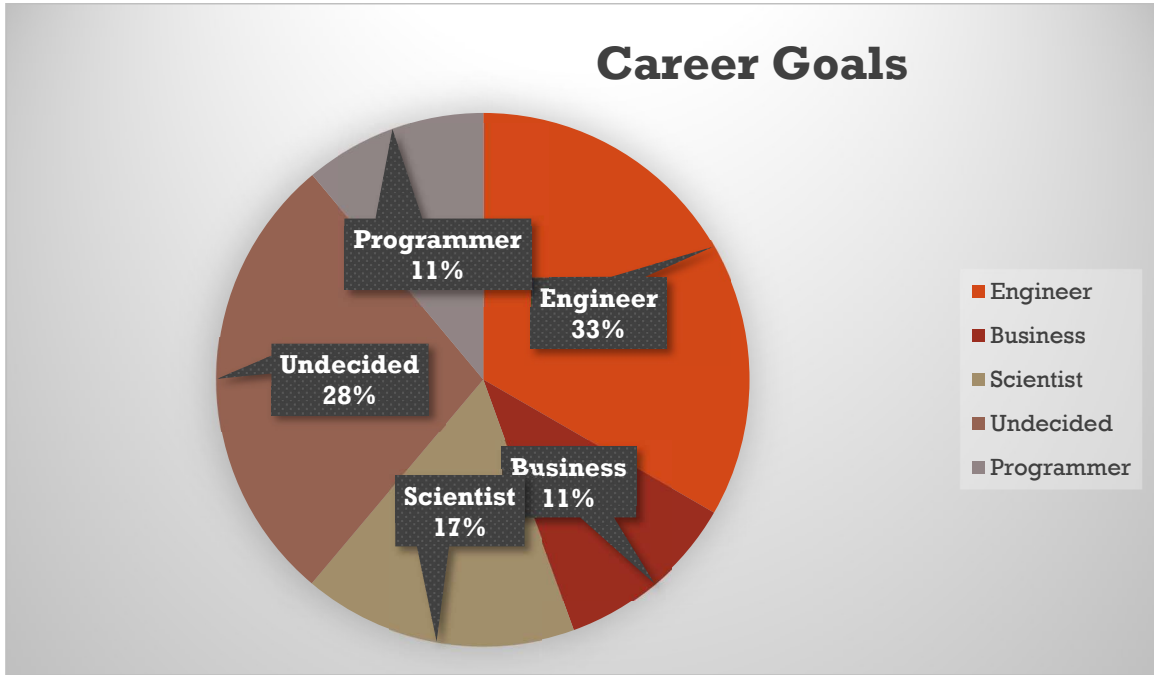
## Business Skills Gained



## Soft Skills Gained



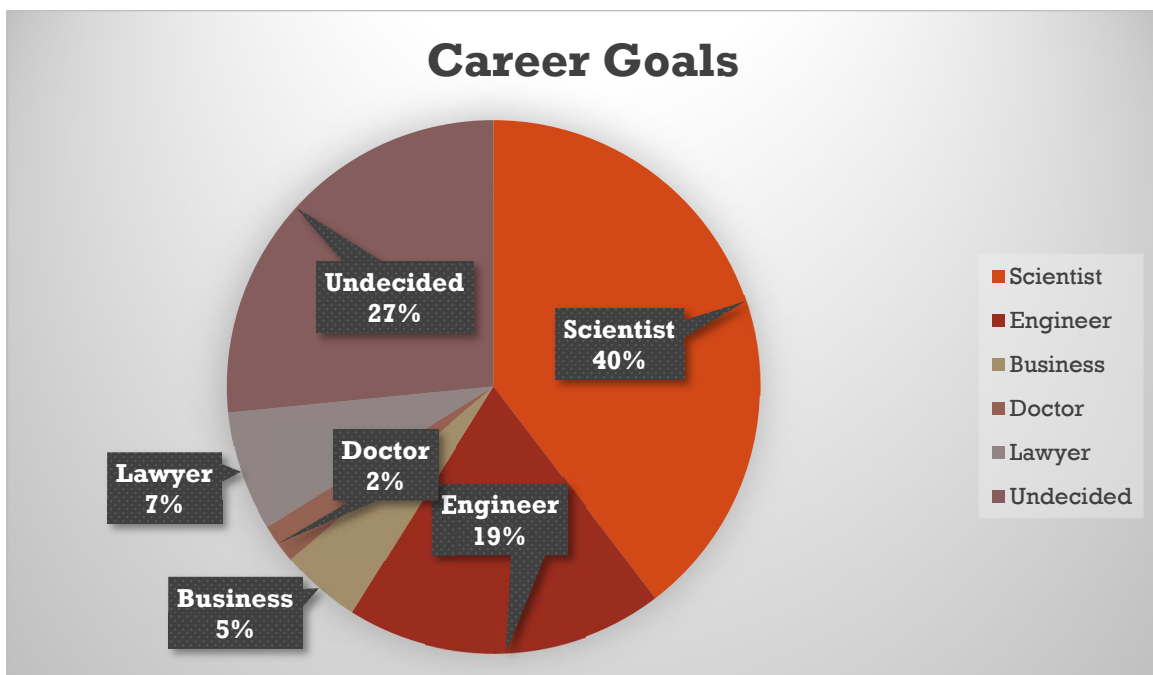
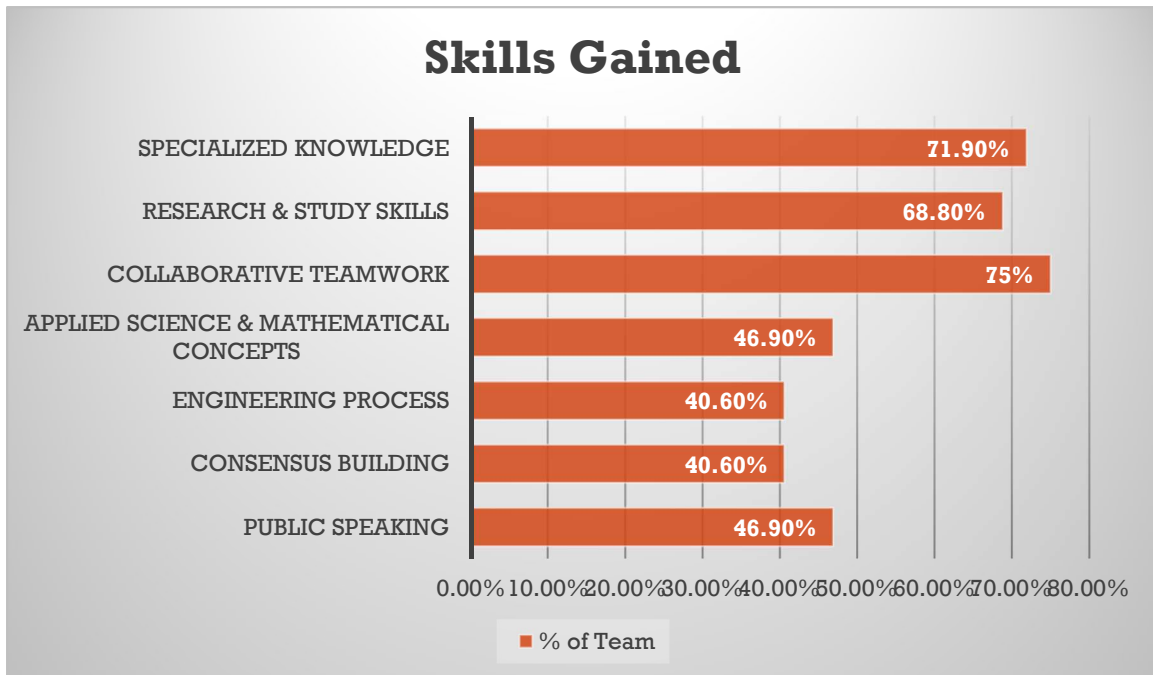




**From the Students:**

"I have learned more about engineering from this program than any other class I have taken."  
 "I think this program is valuable because you get to meet people from around the world and learn about their culture."  
 "It was a valuable experience because of all the things I learned that will help me later in life."  
 "It's inspiring that each and every sub team needs each other. Like mechanical needs marketing to advertise their robot, and marketing needs mechanical's robot to advertise."  
 "I thought it was amazing to see everyone at my first competition helping each other and that was when I realized FIRST is really like one big family."

## North Austin Science Alliance



### From the students:

"It challenged me in science, and taught me a lot about competition and about myself."

"I gained confidence and test experience."

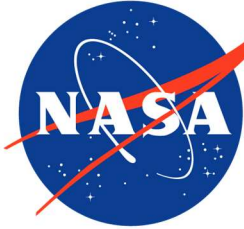
"I improved my study and test-taking skills, and met people with similar interests."

"I definitely learned things that I will use throughout life."

"It gave me a better understanding of different possible career paths."

## Sponsors

Sheriff: \$5000+



Marshall: \$2,000-\$4,999



Deputy: \$500-\$1,999



Rancher: \$100-\$499



## DONORS

*"Our undying appreciation for your generosity for helping us build our second year!"*

Mary Austin	John & Cathy Pearson	Kenneth Chackes
Logan & Stephanie Owens	Lou Ann Corcoran	Laura & Ted Irani
Alex & Hillary Granda	Robin & Joe Owens	Terri Leamy
William & Bettye Lindsey	Donald Leamy	Dale & Joanne Granda
Diann & Rusty Marchman	Janie Skiles	Sheila Smith
Susan & Erling Holey	Becky Chamberlain	Pamela Havel-Moser
Noel Strader	Jeff & Pam Autrey	Andrew Chackes
Paul Chamberlain	Carrie & Luke McKenzie	Cherie Kitterman
Larisa Bourgeois & Jason Griffin	Kevin Tretter	Gamila Camille Baptiste
Laurence & Arnaud Prodel	Jeff & Sharon Hobbs	Billy & Tracy Lindsey
Rahul Young & Meg Pearson	Jim & Margie Lindsey	Honey Habingreither
	Tracy Bodiford	Frederick Czajka
	Susan Wiley	Delilah Tinsaye

## "PUSH FOR CHAMPS" DONORS (HOWDY BOTS)

*Champs Call for Help "We wouldn't have gone to Champs without your last-minute support! Thank you!!"*

Chris Cherry	Keri Gerber	Ysidro Perez
Larisa Bourgeois	Pamela Havel-Moser	Shyam Attavar
Virginia Miller	Patricia Gordon	Chris Twing
Oliver Eikenberry	Sharon Reese	Inez Vanderburg
Olga Andreeva	Cheri Fox	Jayne Allen
Katrina Brent	Heather Kangas	Walter Morgan
Amy Rose	Becca Burns	Ezana Haile
John Gann	Christopher Leriger	Dawn Clark
James Blessing	Donald Leamy	Camille North
Clint Ott	Suzanne Taylor	Bradleigh Petty
Andrew Hartnett	Jen Philhower	Brielle Epstein
Patricia Spivey	Christopher Overstreet	Trangdai Tran
Scott Sehlin	Cordelia Becker	Becky Chamberlain
Suanne Bouvier	Jennifer Adams	Yvette Wang
Jessica Rowland	Frances Ellington	Keith Land
Terri Leamy	Michael Kindig	Shawn Weisfeld
John Buczek	Kelly Ligon	Susan Salch
April Aguren	Brenda Kelley	Michael Hofkamp
		Leah Bo

## Thanks to Our First 2019 Sponsor!

Efforts are already underway to recruit new students to both the Howdy Bots and the North Austin Science Alliance programs for the coming year. We're looking forward to another season of inspiring kids and teens with critical 21<sup>st</sup> century STEAM skills. Toward this end, we would like to welcome KLA-Tencor as our newest sponsor for 2018-2019!



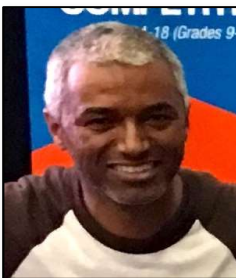


## Board of Directors

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 been a homeschool dad for eleven years.



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 17 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 13 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 23 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. He is the proud father, learning coach and task-master of two at home high schoolers.