



Dear Valued Partner,

The 2016-17 Howell Highlander Robotics season was one of several firsts, and an amazing success for all nine teams. We are very proud to share our many exciting accolades with you, our respected partner. Thanks to your support, we had a remarkable year, and inspired almost one hundred families, and this year it has increased to almost 125!



Last fall, our organization launched three new *FIRST*® Lego League teams (FLL), Brick Bosses, the Hurricane Bots, and the Pirate Bots. Teams comprised of students in grades 3-5 joined our original team, the Viking Bots. The ten children on each *FIRST*® Lego League team build LEGO® Mindstorms robots and develop research projects based on a real-world

problem. Our rookie team, the Pirate Bots won a *Judge's Award* for their indelible spirit and unforgettable pirate culture. Another rookie team, Brick Bosses won a *Robot Design and Innovation* award and further advanced to the State finals. To win advance to States, an FLL team must do well in all three judged categories: Core Values, Project Challenge, and Robot Challenge. Additionally, their robot score must be in the top 49%, which gives you an idea of how competitive the *FIRST*® Lego League is. The Howell Highlander Robotics leadership board has begun meeting with the five elementary school principals to bring Superintendent MacGregor's vision of, "having a robotics team in every school in Howell," to fruition. We have created a sound plan to infuse the FLL and Jr FLL teams into the schools by next fall. This plan involves marketing the program, transferring the brand and supplies, finding teacher liaisons, increasing visibility, and securing the funding for future sustainability.

In our *FIRST*® Tech Challenge (FTC) program, students in 6th, 7th, and 8th grade students, from ALL local areas, learn to think like engineers. Teams build robots from a reusable kit of parts, develop strategies, document their progress, and compete head to head. The



FTC robot is built from either from the TETRIX or MATRIX Construction, and uses Java based programming, with two Android phones.

For the second consecutive year, our *FIRST*® Tech Challenge (FTC) teams, KAOS and KILTS won several awards and advanced to the state finals. And for the first time, Team KAOS advanced further to the Super Regionals in Iowa. The students won an award for their Engineering Notebook, but to their surprise, the majority of the competing

National FTC Teams consisted of high school students. This was an exercise in employing their Gracious Professionalism and good sportsmanship.

An unanticipated surprise last year was the formation of two new Jr. FLL teams, Dragon City and Technobots. A *FIRST*® LEGO® League Jr. team designs and constructs a model with motorized parts using LEGO® elements, then presents their research journey on a Show Me poster. For students in our lower elementary program, this was their first introduction to Robotics and their first time competing and interviewing with judges. This year, the Technobots were awarded the “Inquiring Minds” award, and Dragon City received the “Picasso Award.” This year, the demand for this program was so high, that we started three more teams, for a total of five Jr FLL teams.

Our FRC team, S.C.O.T.S. Bots succeeded in winning several awards, also. For the second year in a row we were awarded the Entrepreneur Award and the UL Industrial Safety Award. We were awarded the Entrepreneur Award for our sound business plan and sustainable leadership succession plan.

The UL Industrial Safety Award recognized us for our comprehensive safety training program and outstanding safety practices in the machine shop, community, and at competitions. To learn more about our safety practices, please view the Safety tab on our website at www.scotsbots.org.

We are most proud of the Gracious Professionalism Award we received, which was awarded to us for our good sportsmanship, and the many ways we have helped other teams. We were nominated by other teams for this award, which is a testament to the integrity and character of the amazing students and mentors that join our program. Small gestures such as; “the students helped us unload our trailer” to larger gestures like; “the students and mentors donated time and materials to build us a climber” helped our team win the nomination.

At Howell Highlander Robotics, our students and mentors are very welcoming. We proudly embrace diversity and recruit students from all local communities. Currently, we have students from Hartland, Highland, Milford, Howell, Fowlerville, and Brighton. In the history of our team, we have also had international exchange students, students with disabilities, and home-schooled students as well. Our diverse student population is only one of the most important attributes that make our program unique. Additionally, our mission, vision, and values, directly align with that of *FIRST®*, which is to inspire ALL students to become interested in STEM.

With only a few *FIRST®* seasons behind us, our team successfully hosted our sixth *FIRST®* Robotics Competition event at Parker Middle School, which attracted over 5,000 visitors and 40 high school robotics teams from all over Michigan. In December, we also hosted another dual FTC Competition. This was unique because we ran two competition fields simultaneously. This year we have opted not to host a Competition, but rather focus our efforts on the team.

Additionally, our FRC team graduated four more students, who are all pursuing STEM degrees. We also hold an annual scholarship workshop to teach students to create a resume, and use it to apply for some of the \$50 million dollars in college scholarships, available through *FIRST®*. To date, our seniors have received more than \$170 thousand dollars in scholarship money, thanks to the benefits of the program. Thanks to our partners at TRW, our first year Robotics alumni were able to work as paid professional interns over the summer.

S.C.O.T.S. Bots FRC students did not slow down over the summer. Our students hosted several classes including Introduction to Programming and Young Engineers Clubs. In collaboration with the Transportation Department the students participated in a Rescue Vehicle Day. They operated Buster, the talking school bus robot, which is used to teach children about riding the bus safely. They also hosted three Young Engineers Clubs and Introduction to Programming in collaboration with our library partners, and attended Libcon, a library Comic Con event. They also participated in the Livingston County Electronic Recycling Drive to help unload and sort unwanted electronics such as televisions



and speakers; and participated in Robocon, a festival of Robotics and STEM learning. In 2016, Howell Highlander Robotics created and formed a project based learning group called STEM Sisters. It is an alliance of talented high school females from surrounding Robotics teams in Livingston County and beyond. These motivated and inspiring young women have found their voice. Their mission of promoting STEM, to other females, can be heard louder and stronger when they work together. These ladies meet monthly to learn about business and management, create collaborative team building activities and develop unique STEM opportunities for themselves and younger females. To date, they have successfully hosted a “Cupcake Science” class for a young Daisy Scout Troop and participated in a self-defense class. Our female students are still working hard to connect with other females from other Robotics’ teams and spread their mission through opportunities such as a Rosie the Riveter world record photo opportunity and women’s workshops.

Our team worked hard this summer participating in several *FIRST*® related activities, but we also planned some entertaining team building activities as well. The students planned a Cardboard Duct Tape Regatta as a summer and team building activity. The students were expected



to compete against each other, by building a sea worthy vessel, using only cardboard and duct tape. They had an enjoyable time and earned awards such as “The Titanic Award” for the most gracious sinking. The “Speedboat” award was given to the team with the fastest time. I might add that the team consisted of two freshmen females who gave the upperclassmen a “run for their money.” Next, the students plan to lead the elementary school students in building cardboard

boats, by teaming up with the Elementary School STEM teachers to present this as a fun classroom activity.

As we anticipate training new members this fall, and preparing for the new game release in January, we also look to our budget. As the next season approaches, we are reminded of the valuable partnerships that have contributed to our individual and team success, and are reaching out to you once again. As with every *FIRST*® team, we must find sponsors each year who are willing to commit to supporting us again, or joining us for the first time in sponsorship,

In less than six years, we have grown from just one team to twelve. This growth is very exciting but it also places additional demands on all our resources. Our financial goal for this upcoming season is to continue to fully fund and manage the Howell Highlander Robotics succession



of all twelve teams. Last season, we raised \$4000 at a Quartermania fundraiser to create a scholarship fund for hardship student; and \$2800 at a Lingenfelter fundraiser for our FRC team. But our budget still requires us to raise approximately \$50,000 through sponsorships, new fundraisers and student fees for the upcoming season. We are inviting you to join us again in sponsorship and remain a part of the future of change. Please join the list of many prestigious companies who have

already supported us, such as: Ford, Autodesk, Ansys, MS, UM Flint, and TRW.

We are grateful for all the businesses and companies who are willing to continue to extend their name, reputation, and finances on our behalf, and our partnership has been a privilege. We hope you will find S.C.O.T.S. Bots to have been a worthwhile investment and we look forward to partnering with you in the upcoming season. S.C.O.T.S Bots continues to recruit for new mentors and experts to join our leadership team so, if you, or anyone you know is interested, there a place for you on our team.

For more information about becoming a mentor, or sponsoring our team, please contact Kim Portuesi Community Outreach Mentor, at kmportuesi@comcast.net or 810-656-5850.

To participate in a media presentation or robot demonstration, please email Kim Portuesi, or view our website at www.scotsbots.org.

For sponsor donations, please make checks payable to Howell High Robotic Howell

High School, c/o Elaina Rocco-Hoxie 1200 W Grand River Ave., Howell, MI 48843, or contact her at roccohoe@howellschools.com for an invoice. If you have not already supplied us you're your company logo, please do so. Again, the mentors and students thank you for your support. We are very pleased to join you once again in partnership and our success is your success!



Sincerely,

The Students and Mentors of Howell Highlander Robotics
"Service, Character, Opportunity, Teamwork, Spirit"



Sponsor Benefits

All sponsors of our robotics team or the FRC Howell District Competition are eligible for different benefits depending on the level of sponsorship. The levels are listed below:

Highlander Heroes Competition Sponsor

All Amounts

- Company thanked during competition, including on the competition stream and ceremonies.
- Company allowed to hang banners and advertise at competition, with exposure to over 5,000 people.
- Company featured on official competition banners and brochures.

Titanium Sponsor

\$5,000+

- Large-size company logo featured on team robot.
- Large-size company logo featured on team t-shirt.
- Large-size company logo featured on team banner and in pits.
- Large-size company logo featured on team trailer
- Company logo, description, and link to company website featured on team website.
- Plus all Steel Sponsor benefits

Steel Sponsor

\$1,000 - \$4,999

- Medium sized company name/logo featured on robot
- Medium sized company name/logo on competition t-shirts
- Medium size company logo featured on team banner and in pits
- Plus all Chrome Sponsor benefits

Chrome Sponsor

\$500-999

- Small company name/logo featured on competition shirt
- Team picture
- Plus all Aluminum Sponsor benefits

Aluminum Sponsor

\$100-499

- Invitation to competitions
- Company name/logo on website
- Certificate of Appreciation

“Give and Go” Trailer Ad for local sponsors

\$100 Annual and Renewable

- Small ad on rear of trailer
- Certificate of Appreciation

Friends and Families of S.C.O.T.S Bots

\$25-99