Chairman's Award - Team 2980

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2016 - Team 2980

Team Number

2980

Team Name, Corporate/University Sponsors

The Boeing Company / United Technologies / IDEX Foundation / IDEX Health and Science / Wildcat Robotics Booster Club / NASA / United Technologies Corporation / Oak Harbor Educational Foundation / Office of the Superintendent of Public Instruction / North Whidbey Lions Club / Oak Harbor Lions Club / Offices of Superintendent of Public Instruction (OSPI) / Soroptimist International of Oak Harbor / Oak Harbor Rotary Club / Ashley's Design / Krieg Construction / Intellectual Ventures / Microsoft / Bowman Manufacturing / Google / Trossen Robotics / Oak Harbor High School CTE Department & Oak Harbor High School

Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2015/2016 year and the preceding two to five years

We believe FIRST is not about building robots but about building strong kids to become innovators & leaders. We embrace students of all abilities & had members with disabilities each year. We have a 100% on-time graduation rate surpassing our school & our state's average. 80% of our members continue to college, many in STEM fields. Our members achieve great things. One of our seniors received a full-ride to Notre Dame. Another senior is a 2015 Dean's List winner and was admitted to Stanford.

Describe the impact of the *FIRST* program on your community with special emphasis on the 2015/2016 year and the preceding two to five years

In the past year, we've added 7 new FLL teams to an island-wide total of 9 FLL teams. We mentor all of our FLL teams along with our new Jr. FLL team. Moreover, we expanded our FTC in terms of people. Last year, we had 21 members in FTC which grew to 25 people this year. With events like our girls day, hour of code, weekend lego camps, and our well known Design Competition we teach kids about gracious professionalism and the benefits of working as a team to better the world.

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

We believe FIRST isn't about robots but about bettering our local & global community. We 3D printed arms for 2 young girls & a finger for a working man, built a robotic deer to catch poachers, started new high school & middle school robotics classes, remodeled an adult education center & built a shelter for the outdoor classroom at our local middle school, held weekend robotics camps with over 90 kids, & go to local parades, the Pig Roast, & Driftwood days to give back to our wonderful community

Describe examples of how your team members act as role models and inspire other *FIRST* team members to emulate

Quantitatively speaking, our team members have amassed over 900 man-hours volunteering over the past year alone. We spend fewer hours building robots than we do spreading Woodie's prodigious message of love, communication and never-ending compassion. From prosthetics to multilingual FIRST dictionaries, we work fastidiously to embody the slogan of "More than robots" in our island wide FIRST family consisting of Jr. FLL, FLL, FTC, and FRC.

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

From our inception, growing FIRST teams has been difficult for us. Living on an island with a predominantly military community, our student population is both small and fluid. However, we've lobbied for FIRST through Olympia FIRST day and work to help sustain our FRC child, the Cyborg Ferrets from anacortes. While we only have one FRC team, we have 10 FTC, FLL, and Jr. FLL teams just on our own island.

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

Four years ago when we started our first two FLL teams, we were already preparing to grow even more. This year alone we've mentored nine FLL teams and one junior FLL team. Three of these teams extend to other school districts. Our FTC team began three years ago and has grown exponentially. So far, we have more than 5% of our island school district in some part of this program and we intend to grow even further.

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 started 7 new FLL teams totalling 9 FLL teams in two different school districts. Each FLL team was mentored by one of our members. We are very proud of one of our teams that made it to our regional FLL competition. Moreover, we mentored our first Jr. FLL team this year. In years past, we have assisted the local Atlantis Robotics Team at the County State fair. We do this solely to spread the message of FIRST to anybody and everybody in hope of creating a better and brighter future.

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)

Our team played a large role in extending the FRC program to the Cyborg Ferrets in a large town north of us. Our teams are in alliance, letting each other use equipment, bouncing robot ideas off each other (like recently when our team went up to discuss 3 possible FRC designs), and even playing practice matches. At competitions our team makes sure that it's a priority to go around to each team to see if they need assistance whether it includes lending them parts or even help with programming.

Describe your Corporate/University Sponsors

Our sponsors include, The Boeing Company, United Technology Corp, IDEX Foundation, IDEX Health/Science, OSPI, Google, Microsoft, Intellectual Ventures, North Whidbey Lions Club, Ashley's Design, private donors, and especially our The Wildcat Robotics Booster Club. Our Wildcat Booster Club have helped with the transportation, food, and the structure of the individual club. The other sponsors have helped with major financials that help with community projects and events.

Describe the strength of your partnership with your sponsors with special emphasis on the 2015/2016 year and the preceding two to five years

We are working with IDEX, a local medical technologies company, to advance the prosthetic arms that we create for our community. Our booster club members assist in the structure of the club, transportation, and other essentials. Every year we invite our sponsors, including members of the community that form organizations supportive of us and our school district to vote on the design of our robot. At the end of the build we invite them to see the finished project and enjoy a spaghetti dinner.

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

FIRST is for students K-12. Kids from anywhere and everywhere learn how to design, fabricate and test robots. However, more importantly, FIRST introduces kids to a vibrant and supportive community. It teaches kids how to learn and work as a team. To believe they can do anything, and achieve something far greater than they thought possible. FIRST is a community, a family that is always there to support you, and encourage you to do what you love, and to succeed in life.

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

When our team says "It's not about the robot," we mean it. In hours and in effort, we consistently place service above the build season. From robotic deer to toothbrushes for the impoverished of Honduras, we do our best to make the world a better place. We make dreams come true. From children without arms to Dean himself, we aim to transform the impossible into the possible, the difficult into the easy and aspirations into legacies.

Team Captain/Student Representative that has double-checked this submission.

Michael Uttmark

Essay

Making Dreams Come True
"Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience, and the passion to reach for the stars to change the world." -Harriet Tubman

Everyone has a dream. Whether it's world peace or a Red Ryder air rifle, we all dream of doing something, obtaining something or creating something. We here at Team 2980 from Oak Harbor Washington understand the importance of dreams because, at one point, dreams were all we had. Some of our dreams have come true, and we want to make sure those on our team, those in our local community and those in our global community have their dreams come true too.
"FIRST is everything" - Caroline Jungmann, Team 2980
We started in 2008 with a small group of kids, a teacher and a biology classroom. We started with a dream. Within the past 3 years, our robotics program has grown to encompass a Jr. FLL team, 9 FLL teams, a FTC, and a FRC team. The idea that we would grow to encompass 5% of our entire school district is a dream that we've realized through hard work, persistence and community support.
We make dreams come true for our teammates. In addition to the family innate to FIRST, we support each other emotionally and academically. Unlike our high school, we as a team boast an on time 100% graduation rate, and more

than 80% of our members leave school with the intention of enrolling in a trade school or a 2 or 4-year college. Moreover, we make individual dreams come true. Just this year, Seniors Breanna Belz and Michael Uttmark are going to Notre Dame and Stanford University respectively on full ride scholarships. With a 267% increase in our girl population from last year, we aim to attain equal representation. We continually grow closer to full representation with a female percentage of 37%. Critical to our expansion in female membership is a Girl's Scholarship program to pay participation fees for FTC and FRC. Through the scholarship, we helped 8 girls to become involved in robotics.
"The world needs dreamers and the world needs doers. But above all, the world needs dreamers who do." -Sarah Ban Breathnach
More importantly than ourselves, we make the dreams of those around us come true. In our local community alone, we have over 1000 hours of community service dedicated in the last year alone to spreading respect, tenacity and compassion to those who need it the most. With twenty-two FRC members, that puts the average individual contribution at 41 hours each. To open the gates of communication, we kick off build season with our famous Design Competition. After we've split into different subgroups, we design three or more entirely different robots. After we're done designing, we invite sponsors, community members and anyone willing to come to help us decide which robot we should build. We find that by giving the community a stake in our robot we open communication channels to help us make dreams come true.
One of the ways we make dreams come true is through our prosthetics program. We are currently working with two young girls and one older gentleman to design custom prosthetics to replace their missing limbs and fingers. Both of the girls are currently using arms we made, and we are always working to make them more organic to make their dream of normality come true. Right now, in coordination with IDEX Health and Sciences, we are designing a custom BMX racing arm to enable one of the girls to race just as she does in her dreams. Our community has responded with vigor, putting us on KING5 (a large news network) and on the entire front page of our local newspaper. Through this publicity, we hope to reach more individuals who are uniquely positioned to benefit from our unique resources.
We are also quite handy at construction, and are building an outdoor whiteboard and entryway for an outdoor classroom at a local middle school. We've collaborated with Hearts and Hammers for more than 3 years, doing home repair, landscaping, and maintenance on homes for the elderly and disabled of our community. We've also helped repair a local math teacher's house that was severely damaged after a plethora of tree limbs fell upon her house. We removed 15 fallen trees, and relocated a septic tank before adding a curtain drain to de-flood the foundation. We cut and split the wood from the trees and donated it to help warm local homes. Furthermore, we helped a teacher with housing after their house fell into the ocean. After that, we presented at a budding local makerspace and then removed adhesive from the floor, painted all of the walls, and built workshop tables.
"A dream you dream alone is only a dream. A dream you dream together is reality." -Yoko Ono
We built a heavy lift hexacopter to allow our local video production class to video local sports events and ended up borrowing it to help our city plan and fund a waste treatment plant through aerial videography. This initial incursion into RC flight led us to host quadcopter trainings and quadcopter races in our local gymnasium. We developed such a vibrant community that they ended up branching off to become our island's first RC Flight Club.
Moreover, we've worked closely with our school's special education department to fix broken equipment and develop new equipment to help make our peer's dreams come to fruition. Additionally, we fix broken consumer electronics for free and are working on creating a sustainable electronics ecosystem on our island.
We organized and hosted a Tech summit at our local high school. The summit included people such as Shira Kates, Andrew Dresner, Kristin Brinner, and Christopher Farrell, as well as organizations like Yahoo, Interbotix Labs, LevelTen Interactive, Farrell Robotics, and One Dimension Games.

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In order to promote diversity in STEAM, we host girls only events such as our "Girls Day" at our local library. Through a series of engineering related challenges, we teach local elementary school age girls how to work as a team to solve problems through critical thinking. Moreover, we collaborate with our local clubs in everything we do. We are especially proud of our relationship with The Guild, our school's art club. While conventional wisdom holds that art and engineering shouldn't mix, we of Team 2980 disagree. We work with The Guild whenever we design logos, standards or even plan robot aesthetics. In celebration of the integration of art into engineering, we dedicated our entire last season to art and themed our Design Competition and Pit after the magic of the arts.
In the Spring, we host our Weekend Lego Robotics Camps. Much like FLL, we mentor children through the process of designing, building and programming a Lego robot to complete a series of tasks. However, as the name may suggest, our event takes place over the course of a weekend, allowing us to introduce more children to the ways of engineering, critical thinking and creativity. Last year we had over 100 kids participate and had to turn applicants away for need of more resources. This year we are locked and loaded and are planning on running four or more Weekend Lego robotics camps this spring.
We do not stop the magic at our borders and instead make dreams come true throughout our entire global community, allowing our gracious professionalism to ripple out into the world in the hope of inspire others. Just recently, we sent a group of FIRST members representative of our Island Wide robotics program to help FIRSTWa thank the Washington legislature for their gracious support of FIRST throughout the state. Our event schedule is now integrated into our Senator's and Representative's calendars and we look forward to nurturing our symbiotic relationship with our congress.
We also created a multilingual FRC dictionary to translate between French, Hebrew, Turkish, Spanish, Japanese, and English to allow teams from different geographies to break through language barriers at FIRST events where English is

not the primary language of all teams present.
Moreover, we partnered with a local health professional and a dentist to collect toothbrushes and toothpaste to bring to Honduras. The people who received our toothbrushes had to be taught how to brush their teeth, as dental hygiene is unfortunately alien to many.
Our long term project is a water purifying tricycle designed for sub-Saharan Africa. Water is purified in a three stage process while simultaneously transporting the water on the back of a tricycle. This solves two problems. It helps reach water sources that can be up to 20 miles away while purifying contaminated water making it fit for human consumption.
Another long term project is our Animatronic Deer which we designed to catch poachers. By adding multiple means of motion to a pseudo-deer, we've developed a product unavailable by typical means specifically for the Washington Fish and Wildlife Protection Service. Our deer has been out in the field, and we hope it gets shot in the place of a live deer.
In conclusion, Team 2980 realizes, much like Anatole France, "that to accomplish great things, we must not only act, but also dream; not only plan, but also believe." We believe that the armless should have arms. We believe that clean water is a human right. We believe in the magic innate in communication and inspiration. We believe we can do great things. We believe in making dreams come true.

2016 - Team 2980

Picture 1

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Picture 2