

## Chairman's Award - Team 4911

[Print](#)[Close](#)**2018 - Team 4911****Team Number****4911****Team Name, Corporate/University Sponsors**

Microsoft/Electroimpact/Boeing/Ward Phillips/SuperGraphics/GM Nameplate/Society of Women Engineers/Lodestar Marketing Group/Romac Industries/Alaska Airlines/Intellectual Ventures/Reign Sportsmanagers.com/F5 Networks & King's Schools

**Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2017/2018 year and the preceding two to five years**

FIRST guides us to our potential. Without FIRST, our entire team's desire to pursue STEM-based careers, become leaders, and discover a passion would not be possible. Over the past five years, 77% of our alumni pursued careers in STEM, and 93% attended college. They found their potential during their participation on the team and in our outreach. With our discoveries, we form paths for other students to have an opportunity to pursue STEM careers. This changes our game—all because of FIRST.

**Describe the impact of the *FIRST* program on your community with special emphasis on the 2017/2018 year and the preceding two to five years**

Within our school, we partner with our student council and National Honors Society to plan fundraisers for our outreach programs. Expanding to our local community, we host 8 events per year for local FIRST teams, as well as campaigns for the public, ranging from barbecues to FTC league meets. Since 2014, our team participated in over 35 demo events like Seattle's Mini Maker Faire to spread FIRST. In these events, many parents and businesses ask how they can get involved in FIRST programs.

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

We strive to create STEM-based experiences that help students discover their potential. This goal has been most prevalent through our Unified Robotics program. The program started in 2015 in 3 schools, but now exists in dozens of schools with 50+ teams in 5 states. In 2014, we hosted the first-ever PNW Unveiling Event, with a total of over 50 teams from 4 countries participating in years since. This event brings teams together to present their progress, share ideas, and make new connections.

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

Our mission is to inspire future leaders inside and outside the team through robotics. Not only do we contribute within school clubs, we invite members of the FIRST community to collaborate on issues in the area. Since 2016, we contributed to the PNW Business Roundtable to advise and support other teams during monthly meetings. We are also a founding member of The Compass Alliance, a coalition to improve teams' capabilities by providing resources that can be used by all teams around the world.

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

We aim to provide opportunities to as many students as possible. This led to our partnership with Israeli Team 4590 GreenBlitz to start the first FRC team in Vietnam: Team 6520 Green-Ams Robotics Team. We continue to work with GreenBlitz to pilot FRC, and this past year assisted in forming two more rookie teams in the Hanoi area and one in Hong Kong. We actively involve local legislators at the Washington State capitol to allocate more funding by participating in FIRST Day every January.

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

Following our pursuit to increase opportunities through robotics, we formed 25 FLL Jr., 24 FLL, and 8 FTC teams at our school, and we financially support the FTC teams. To start a sustainable team, in 2012 we received a \$10K Google RISE Award for an FLL team in South Los Angeles. We started a STEM department in a music and art school in Uganda, Beacon of Hope School, providing equipment, mentorships, and financial support. This initiative led to forming the first East African FTC team 12443.

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

At our K-12 school, our team formed a FIRST pipeline that progresses from FLL Jr. to FRC, allowing students interested in STEM to continuously apply skills they learned in the classroom. We've coached our school's FLL teams for the past 2 years. In LA, students on the FLL team remain in the FIRST program as they transition to secondary school. We also contribute to resources on The Compass Alliance website, called "Pathways," to provide teams important skills to progress them in the FRC season.

**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 value growth and peer mentorship in all the programs we form or work with. This includes our newly formed Vietnamese FRC teams who we contact weekly to assist in their progress during the season. Through our involvement with coalitions like the Compass Alliance and the PNW Business Roundtable, we provide guides and documentation that help younger FIRST teams navigate during the season. During the past 9 years, we've coached our school's FLL teams and mentored our FTC teams.

**Describe your Corporate/University Sponsors**

We work with a range of companies and individual donors for support. A majority of our sponsors exist in STEM industries like Boeing, Microsoft, Romac Industries, and Electroimpact. We also have non-STEM sponsors like REIGN Sports Management and Lodestar Marketing Group, as well as in-kind donations from Starbucks and Red Cork Bistro. In addition, our school serves as one of our major supporters: our principal and superintendent travel to support our team at regional and world championships.

**Describe the strength of your partnership with your sponsors with special emphasis on the 2017/2018 year and the preceding two to five years**

Several of our sponsors have supported our team for over 5 years. Organizations like Umpqua Bank and the Pacific Science Center partnered with us for Unified Robotics. Likewise, Microsoft donated 20 Surface Pro PCs for Unified Robotics teams to use for programming. We provide updates on our website and issue newsletters to inform their ROI. Through their support, CyberKnight members received internship and job offers, as well as mentors who passionately dedicate their time to support us.

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

Loudly with gusto: FIRST is a leading organization that helps students around the world find their potential through experiences in STEM. Their K-12 programs equip students with important leadership and problem-solving skills through technical challenges and business experiences that go beyond the classroom. Beyond building robots, FIRST changes the game in education by encouraging students to not only compete but also cooperate, think big, and contribute to solving the world's biggest problems.

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

Looking back at our past years, we realized a flaw in our mindset. When striving to aid others through our outreach, our competitive mindset follows us off of the field as we aim to be the best in everything we do. But this is not about us. As CyberKnights, we hold ourselves to live through our values: equity, growth, and peer mentorship. We aspire to transform lives and, in turn, transform ourselves in the process. This year, we are changing the game. It's not about us. It's about the journey.

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

Laurie Machida

## Essay

### NEW GAME

We can't change the world by ourselves. Each of us start as solo players, adventuring to obtain the shining trophy in the game of life—but it was too far from our reaches. Soon, the CyberKnights were brought together by FIRST: people with dreams, passions, and a drive to make an impact. We learned that we can make a difference when we're together with the help of FIRST. So this time, we dove into the game of life together as a team. As Mario said: "Life is a game, kid! It all depends on how you play!"

### TRIAL RUN

In every game, a player must figure out their player type, controls, and level strategies. Players define themselves in the choices they make as they progress through each level. In playing the game of life, we had to discover our identity as players. As CyberKnights, we promised ourselves to be players that make FIRST principles loud and clear in all our outreach. Our mission statement, "to increase opportunities for students through robotics," is our personal guideline—our "controls." Our strategy in playing the game produces the projects we have today.

### CHOOSE YOUR PLAYER

Before entering the game, we had to build our character. Through all of our student-initiated outreach programs, the CyberKnights have been able to chase their passions. Because of this, we have found ourselves in Israel, Uganda, and Vietnam—as well as our own football field, the city just down the street, and the heart of Seattle. We discovered that a passion that takes us next door is just as powerful as the one that sends us halfway across the world. We learned that FIRST robotics is a universal language. We built our character to chase our passions. Over the past 9 years, simple ideas from students transformed into sustainable programs as seen in our Unified Robotics (UR), Los Angeles (LA), Uganda, and Vietnam projects. Through these, we have demonstrated that we are a team who uses FIRST robotics to bring opportunities to others so they can have the same life-changing experience as us. Even after CyberKnights graduate, FIRST influences their life in college. Over the past four years, 93% of our alumni attended college, and 77% chose to pursue a STEM career because of their FIRST experience.

### LEVEL 1: SCHOOL

As our team progressed beyond the foundations set by the trial run, we unlocked level one: our school. By extending our reaches a bit farther, we apply skills learned from FIRST to teach our school about robotics. We have established a "FIRST pipeline": a program that allows a student of any age to participate in hands-on robotics. CyberKnights from the FRC team coach our FLL teams and mentor our FTC teams, introducing them to the world of robotics. Our FIRST pipeline has produced 54 FIRST teams within our school over the past 9 years. Leading younger FIRST teams gives us the opportunity to be role models and forge relationships with them, inspiring them to level up to FRC.

As we advance through level one, other players join our quest. We partnered with student organizations, such as student government (ASB) and National Honors Society (NHS), to increase our target audience within the school. Collaborating with ASB and NHS has brought opportunities for hair dye fundraisers and video game tournaments to raise money for our Uganda project. The CyberKnights are currently working closely with ASB to plan a spring rock concert with student musicians to raise more funds for the Beacon of Hope (BoH) School in Uganda, a school for the rehabilitation and education of former child soldiers. From this wide range of fundraising opportunities, we plan to provide \$7K to CyberKnights Uganda to help financially support the creation of their new robotics lab.

### LEVEL 2: LOCAL

Passing beyond the beginning levels, our journey took to the second stage. The CyberKnights connected with local FIRST teams and Seattle's special needs community in level two: local. Our Unveiling event is one of the primary tools in connecting to local FIRST teams. For 5 years, we have hosted a social event every 5th Week of build season where local FRC teams are able to showcase their robot progress and celebrate their hard work. Among the friendly bustle of Unveiling, teams are able to share strategies, form networks, and discuss FIRST as a community. This year, we will host over 250 people with participants from 3 countries—a 313% increase in attendees. Three local media companies will be present to cover the event, as well as a livestream for those unable to attend in person.

In 2015, CyberKnight Delaney Foster brought robotics outside our local FIRST community. Inspired by her sister, she created an equitable robotics program for students with special needs. Thus, Unified Robotics was born. We began with 7 teams from 3 local high schools. In 2016, the program experienced an 457% increase in the number of teams participating. Partnerships with local companies such as Microsoft, Special Olympics Washington, and the Pacific Science Center assisted us in planning large-scale Kickoff and Championship events for Unified through venue and catering. The community right outside our doorstep has helped us see new and exciting ways to serve them. This has prepared us for the next level as we met their needs with our passion: robotics.

### LEVEL 3: NATIONAL

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The beginnings of level three were just in sight: national outreach. With the "power-ups" of financial support and publicity granted by our local supporters, UR exploded. As word of the program spread, teams sprouted in Oklahoma, Hawaii, Texas, and Iowa in 2016, with interest popping up in 9 other states. The 2017 season reached 50+ teams across the country. Thanks to the support of Washington FIRST teams, FIRST, and local companies, UR has grown to be a viable, student-led program. Our powerful ties to our local community allowed us to take our local project and make it a national, sustainable program.

We fully jumped into level three in 2012. The lead of the Californian community center, Adventures Ahead, asked CyberKnights coach Mike Thompson to bring robotics to their students. Thanks to a Google RISE Award we were able to secure, the CyberKnights travelled to LA to start a robotics class. The students at the center exhibited amazing enthusiasm and innovation through their work with LEGO Mindstorm kits we brought. We soon established an FLL team, "Adventures in Robotics." The program has now been running for 6 years and transformed into a self-sustainable class. After our time in LA, we found that our desires aren't geographically limited because we work together to accomplish what we want, leading us to the next level.

### LEVEL 4: INTERNATIONAL

FIRST provides us with multiple tools: tutorials, access to other players, and power-ups. Using these tools, our team entered level four: international outreach.

In 2012, CyberKnight Devin Caplow travelled to LA to work with our FLL team. He was inspired by the program that had formed and wanted to take it to the next level. Through a connection his mother had with the BoH school, the CyberKnights travelled to Soroti, Uganda to start a robotics class in 2013. Since then, we have continued to financially support them through fundraisers, started the FTC team "CyberKnights Uganda," and transformed their robotics class to a year-round program. Today, it is one of the top three STEM departments in the nation, recognized by significant press including Uganda National Radio. We continue to keep in touch through video calls to answer questions and continue our mentorship of the team.

Everyone starts out in single-player mode. However, after acquiring experience, players advance from singleplayer to multiplayer mode. In 2016, Israeli FRC team 4590 joined us in multiplayer mode and invited us to work with them in starting the first Vietnamese FRC team. CyberKnights student Jane Yi and mentor Bobby Neckoruk traveled to Israel in 2016 to help GreenBlitz tutor and instruct the Vietnamese team in a 10-day robotics camp. After gaining business and engineering skills, Green-Ams Robotics Team (GART) was born. The school liaison officer of Macquarie University connected GART to FRC team Thunder Down Under (TDU) to help pay their registration fee. From this, we built a personal relationship with GreenBlitz and TDU. The connection resulted in us reconvening weekly and the opportunity to collaborate on other projects such as "The Compass Alliance."

"The Compass Alliance" is an international gathering of 10 teams to pool resources and ideas to assist the starting and sustaining of FIRST teams. TDU invited us to assist in founding the program due to our previous connection in Vietnam. Since then, we have worked on several topics. Members of our team delved into the matter of team retirement, gathering data from thebluealliance.com. Using the data, we built charts and graphs to show correlations between retiring and remaining teams to identify the causes of team retirement. We are also collaborating with Washington and Oregon FIRST to make a survey giving insight on why teams retire, aiding us to create solutions for sustainability. Our past presentations, safety binders, and outreach videos have been posted for rookie teams to view as well. Past data was also transferred into "pathways" regarding safety, strategy, and scouting in hopes of assisting teams with a successful building season. During this project, the CyberKnights reflected on our progress within the game of life.

### END GAME

Along the way we've encountered countless other players, powered up our skills, and discovered who we are. We also realized the trophy we were reaching for was in our hand all along -- it was our journey. Our hardest challenges ended up being the most memorable parts of the game. Sure, we can't change the world ourselves. But we can change the world for someone. And someone can change the world for us.

Life is a game, we are the players, and the journey is our trophy.