



2016 Season Recap

Special Olympics
Washington
Unified Robotics





Hello!

Thank you for your continued support in Special Olympics Unified Robotics. We are thrilled to see the impact that students with and without intellectual disabilities had during the 2016 season.

It is hard to believe that Unified Robotics is still in its infancy—the program has started only two years ago by a high school student inspired by her sister’s interest in robotics. Fast forward to now, and the program’s growth has increased exponentially, and we are excited to be part of its continued expansion at the national level.

This dramatic growth in this program proves this point: that inclusion matters, even in the STEM field. Our world is filled with technology and engineering wonders, scientific breakthroughs, and mathematical discoveries. Students with intellectual disabilities need equitable opportunities to pursue their interest in these fields.

Students in the general education population

have discovered the potential of their peers with intellectual disabilities. The athlete-partner system of Unified Robotics puts that impact first-hand, as each team of athletes and partners work together for six weeks to design, build, and program a LEGO robot to compete in a tournament-style game.

Inclusion matters. Diversity in schools and the workplace makes our communities stronger. Unified Robotics empowers young people to be agents of change and is creating socially inclusive schools where no student is excluded from opportunities to awaken and advance their passion for STEM. Thank you for your support in strengthening and expanding this emerging program.

Sincerely,

Andrew LaPrade & Laurie Machida
Student Leads

Special Olympics Unified Robotics
Founded by FRC Team 4911 CyberKnights

OVERVIEW

WHAT: Special Olympics Unified Robotics is a first-of-its-kind program that brings the sport of robotics to high school students with and without disabilities, uniting students of diverse abilities as teammates and competitors on the field of play. Athletes and Partners work 1:1 designing, building, and programming robots with LEGO® MINDSTORMS® kits for a unique game challenge. Each participating school will have one, or multiple, robots competing in the Championship Tournament at the end of a six-week build season.

BACKGROUND: Developed in 2015 by King's High School student, Delaney Foster, when she brought her *FIRST®* Robotics teammates to Roosevelt High School to work alongside students with special needs to build robots. Delaney's sister, Kendall Foster, has autism, and Delaney has been a life-long advocate of inclusive education and was inspired by Special Olympics Unified Sports. After the successful pilot season, Foster partnered with Special Olympics Washington to bring Unified Robotics to all high schools. 2016 is the Inaugural season of Unified Robotics as a multi-school Special Olympics Unified Sport and will provide a sustainable and scalable model for other regions to follow.

SPECIAL OLYMPICS UNIFIED SCHOOLS: A strategy to activate youth, engage educators, and promote school communities of acceptance and inclusion where all young people are agents of change.

CREATING THE NORM: Unified Robotics exposes students and educators to the unique talents and abilities of students with special needs. Young people experience working alongside individuals of all abilities and can participate in the movement toward neuro-diverse hiring policies, workplace accommodation and adaption.

2016 SEASON: October 10, 2016 – December 3, 2016

SEASON FINALE: The season culminated in a Championship Tournament between all participating schools. December 3rd, 10 AM - 4 PM, Pacific Science Center. This special event is made possible from generous support of Pacific Science Center.

PARTICIPATING SCHOOLS: Roosevelt High School, Franklin High School, Ballard High School, Ingraham High School, Auburn High School, Newport High School, Lake Washington High School, King's High School, Edmonds Heights K-12, Mariner High School, Eckstein Middle School, TOPS Middle School

**LET'S NOT WAIT FOR HALFTIME
TO MAKE A CHANGE.**

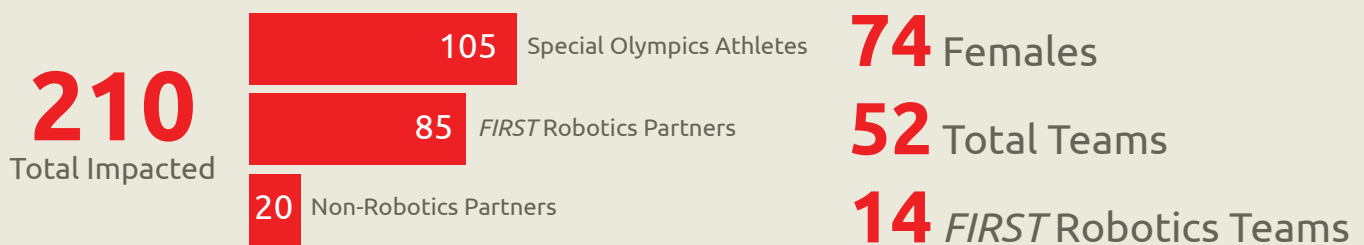
MISSION AND VISION

Unified Robotics was a program founded for the purpose of providing opportunity in STEM for all students. By using LEGO® MINDSTORMS® kits, the chance to compete with self-made robots against other teams is given to students with and without special needs. All skill levels, from creating a fully built and programmed LEGO robot to sticking two LEGO pieces together are treated with equal attention through a one on one partnership, allowing each team to work at their own pace. Unified Robotics continues to strive each and every day to reach the cunning, creative minds that all students have within.

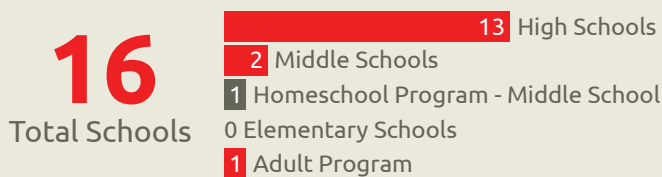
IMPACT

The impact of Unified Robotics has resounded through schools, communities, students, teachers, parents, and the like. As the program spreads throughout the nation, teachers learn alongside their own students about the basics of engineering and the special needs community. Participants are introduced to the realm of robotics, opening potential doors for future careers. Unified Robotics brings awareness, opportunity and fun for students both with and without intellectual disabilities – allowing partners to learn, grow, and compete together in an equitable environment.


BY THE NUMBERS



SCHOOLS PARTICIPATED



ALYSSA BURNETT CENTER

- 
- Run by Seattle Children's
 - Adult Autism Center
 - Unified Robotics Adult Program
 - Partners from UW Bothell

STATES INVOLVED



IN THE NEWS



FIRST Newsletter
Changing the Face of Robotics: Team 4911 Makes *FIRST* Robotics Accessible to the Special Needs Community



SWE Magazine
Taking Inclusion to the Next Level



KUOW Radio
This Young Woman Found A Way For Her Big Sister To Enjoy Robotics



Seattle Robotics Club Wants to be a National Model for Making STEM Accessible to All Students



Robots take over the Pacific Science Center in first ever Special Olympics competition

Seattle Makes History with First Special Olympics Robotics Championship



Teen with Autism Inspires a Movement: Robotics Teams for Everyone



Meet Milo: The Robot Who Helps Kids Learn



Computer Science and Special Education



Seattle teen creates robotics program for kids with special needs



Student-Created Robotics Program Brings STEM to All Learners

Robotics Helps Bridge Gaps for Disabled Students



Inclusive Education Inspires Good Student Citizenship



KICKOFF EVENT

WHEN: October 10, 2016, 5:00 PM

WHERE: Microsoft Redmond Town Center
Redmond, WA

The kickoff event served as a high-energy introduction to the season that demonstrated the passion of all parties involved. Schools and volunteers gathered together with the purpose of introducing and welcoming the upcoming season. Multiple student and adult speakers presented on the logistics of team formation, friendship, and inclusion. Representatives from Special Olympics Washington also delivered enthusiastic presentations on the potential of the program. Following this assortment of presentations, students rotated through various workshops that introduced them to the skills necessary for building and programming robots.

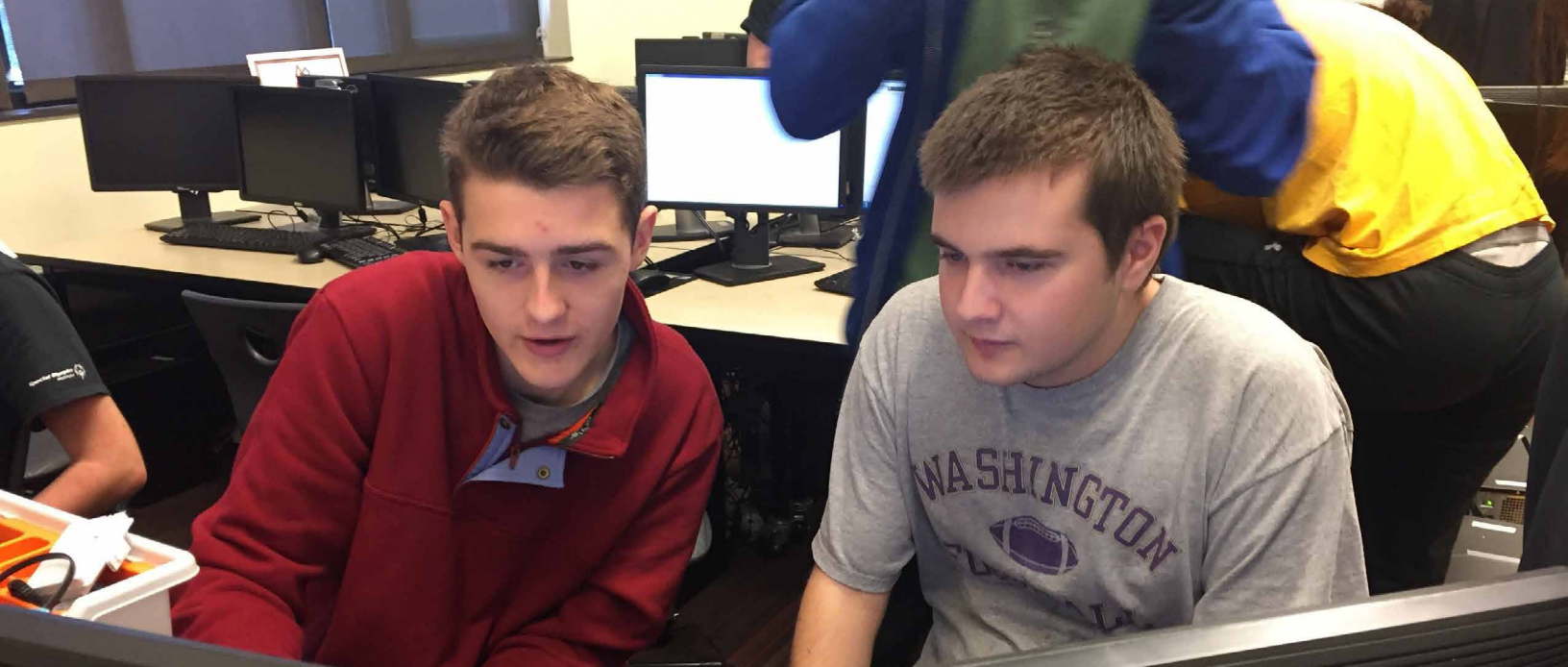


“Attending the [kickoff] event provided me with multiple opportunities to see force for change that the program truly is.”

– Sammy Murphy, CyberKnights

Quick Facts

- Over 175 students, parents, and educators attended
- 8 speakers and 3 workshops to help teams get started
- Facility, catering, and livestream provided by Microsoft
- Promoted neurodiversity and inclusion to *FIRST*® Robotics teams



"I just stand back and watch, because this is something he *can* do."

– Parent of Unified Robotics Athlete

BUILD WORKSHOP

WHEN: November 12, 2016, 10:00 AM

WHERE: King's High School
Seattle, WA

While teams were starting to build their LEGO® robots, Unified Robotics hosted a build workshop for teams and schools that have technical issues with their LEGO MINDSTORMS robot kits, as well as help in the game objective and build process. For six hours, teams from schools in the greater Seattle area traveled to King's High School to receive support for their build and programming from former and current partners of the program. This workshop also encouraged time to continue building for teams that have a tight schedule. An official game field was provided to teams in order to test their robot's abilities and discover new obstacles along the way.



Quick Facts

- Over 6 schools from the greater Seattle area attended
- Workshop ranged from technical issues to programming help
- Provided a facility for teams that had a tight build schedule

A photograph of a LEGO Mindstorms robot, possibly a Technic-based one, on a dark track. The robot is white and black with various sensors and actuators. It is moving, as indicated by the motion blur. The background is a light-colored surface.

Special Olympics Unified Robotics CHAMPIONSHIP

PACIFIC SCIENCE CENTER 2016



WHEN: December 3, 2016, 10:00 AM

WHERE: Pacific Science Center
Seattle, WA

This culminating event was open to both those invited to compete and guests enjoying the Pacific Science Center. During the tournament, teams pitted their LEGO robots against one another in a series of rounds. A panel of judges, composed mainly of various professionals, carefully assessed and monitored the tactics employed by each team. Guests were given the opportunity to wander through the surrounding area and converse with presenters posted at a selection of robotics booths. After the traditional tournament, participants, volunteers, and supporters relocated to the theatre for a final tournament and an awards ceremony. Recognition was given to those who competed through awards ranging from Best Spirit to Most Creative Design. The event served as a successful symbol of the passion and importance of Unified Robotics.

VIP Judges and Speakers

- **Gary Cronan** (*FIRST®* Tech Challenge Team Coach, Seattle Academy of Arts and Sciences)
- **Will Daugherty** (CEO and President, Pacific Science Center)
- **Sen. Joe Fain** (WA State Senate)
- **Mike Grabham** (Founder, Package Guard, Inc.; Start IT Seattle TV show)
- **Cindy Kress** (Science Teacher, King's Schools)
- **Dave Lenox** (CEO, Special Olympics Washington)
- **Michael Mattmiller** (CTO, City of Seattle)
- **Connie Shepherd** (CEO, Cooper Consulting; SVP North America Channel Business Development, Starbucks Corporation)
- **Dr. Gary Stobbe** (Director, UW Adult Autism Clinic)

Participating Schools (WA)

- Roosevelt High School (5 Teams)
- Franklin High School (2 Teams)
- Ballard High School (2 Teams)
- Ingraham High School (1 Team)
- Auburn High School (7 Teams)
- Newport High School (2 Teams)
- Lake Washington High School (5 Teams)
- King's High School
- Edmonds Heights K-12 (2 Teams)
- Mariner High School (1 Team)
- Eckstein Middle School (4 Team)
- TOPS Middle School (1 Team)

“[The program] opens up a whole different avenue of students to be involved in Special Olympics that normally wouldn’t be.”

– Morgan Larche, Director of Unified Schools, Special Olympics Washington



“[What impacted me was] giving the chance for someone like Juan to build a robot and to experience what I experience during *FIRST®* Robotics.”

– Partner, Lake Washington High School
FIRST Robotics Team

“Students with special needs should be able to get involved with tech just like any other liberal arts areas.”

– Parent of a Partner, TOPS K-8 School



Quick Facts

- Over 3,000 students, parents, teachers, and exhibitors attended
- 8 executives and teachers served as Championship judges to assess each team
- A total of 32 teams participated in the championship, each receiving an award
- 5 *FIRST* Robotics teams volunteered or showcased their team at the event
- Over 30 people Special Olympics community volunteered
- School cheerleaders and drumline led a spirited “march to the match” for participants
- Pacific Science Center generously donated the venue to host the Championship

GOALS

In Unified Robotics, there exist four main goals:

1. To inspire leadership and self esteem in students both with and without disabilities.
2. To awaken or enhance passion for STEM in students with intellectual disabilities.
3. To promote inclusion and acceptance in schools.
4. To encourage neurodiverse work environments to the next generation of leaders.

During this specific upcoming year, Unified Robotics hopes to aid others in creating self-sustaining programs within the United States.

2017 Season

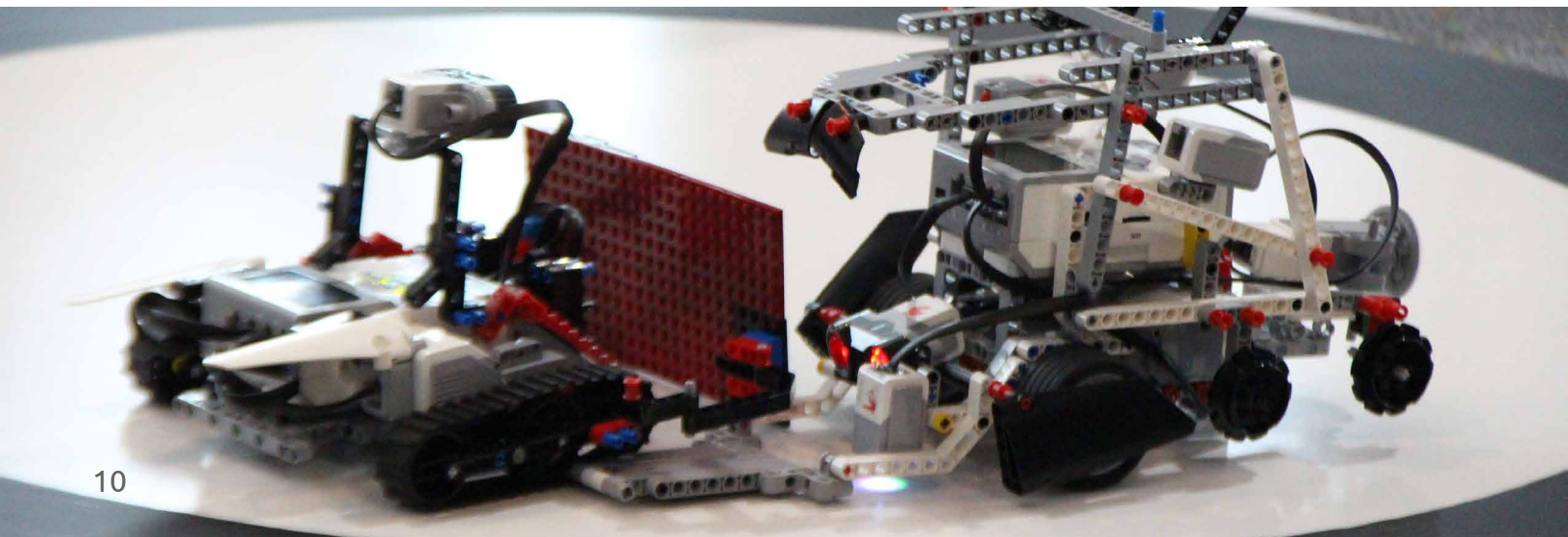
- Create a simplified system of starting teams and registering
- Collaborate with *FIRST* Robotics for more informational conferences at meets
- Increase corporate endorsement
- Expand venue spaces
- Fundraising and grant support
- Promote Unified Robotics as a sport within Special Olympics and school districts
- Partner with community organizations to build a model for Unified Robotics clubs outside of schools
- Increase media awareness at local and national levels
- Secure participation in the 2018 Special Olympics USA Games in Seattle

Within 5 Years

- Corporate and school district support for funding of kits (one time expense for new teams)
- Provide tablets/laptops for schools to borrow
- Set annual budget (event budget, kits, etc.)
- Full support for demos and events to increase public awareness
- Support for public relations and event media
- Funding for printed materials and videos
- Nationwide expansion
- Full-fledged sustainability plan

Long-Term

- Championship to include a recruiting fair for companies and colleges to meet with partners and athletes
- Promote participant's communication and leadership skills to local industry and colleges
- Unified Robotics Kits provided by the LEGO Group
- Paid contract position for Unified Robotics
- International expansion





THANK YOU

**Special
Olympics**
Washington



Microsoft

2016 Unified Robotics Sports Resources Team

Noelle Foster	FRC Team 4911 CyberKnights
Kayla King	FRC Team 4911 CyberKnights
Andrew LaPrade	FRC Team 4911 CyberKnights
Mikel Thompson	FRC Team 4911 CyberKnights
Joe Hampson	Special Olympics Washington
Morgan Larche	Special Olympics Washington
Dave Lenox	Special Olympics Washington
Delphine Lepeintire	FRC Team 948 Newport Robotics Group
Mayank Motukuri	FRC Team 948 Newport Robotics Group
Emma Hamman	Unified Robotics Leadership Club
Mary Jo Gillis	Unified Robotics Parent
Jose Oglesby	Unified Robotics Parent
John Zunick	Unified Robotics Parent
Michael Zunick	Unified Robotics Athlete

“Modeled on Special Olympics Unified Sports, Unified Robotics is a student-designed and implemented program that brings STEM and robotics to high school students with special needs during a six-week after-school program. This program is opening eyes and doors for students with and without intellectual disabilities.”

Carla Proulx, Alliances Manager, *FIRST*®