



Chill Out Year in Review 2024

FIRST Robotics Competition Team 1778 | Mountlake Terrace HS



Prepared by Students of 1778 Chill Out

Sayuri Minnix

Cover Art by Allison White

Chill Out | FIRST Robotics Competition Team 1778
Mountlake Terrace High School | Edmonds School District
21801 44th Ave. W., Mountlake Terrace, WA 98043



Who we are and what we do:

We are Edmonds School District's student-led FIRST Robotics Competition (FRC) team. With no experience necessary, students from all around the Edmonds School District learn on the fly with support from mentors who are industry professionals in engineering, programming, product management, finance, leadership, electronics, manufacturing, graphic design, and who hold a deep respect and appreciation for STEM in the local community.

Each season, the team is challenged to design and build an industrial-size robot for an objective based game under strict rules with limited time and resources. During off-season, the hard work and dedication doesn't stop. The team works hard with outreach projects and events, spreading their knowledge and impact with others and growing the community.



Imagery Award acceptance at PNW District Championships

A Message From Our Captain:

Our team has performed exceptionally well this year. We have invested thousands of hours in learning over the past few years, and our robot's design and performance reflect this hard work. Building and maintaining a successful team is challenging, but the detailed planning, creative processes and strategy first design practices we used this year will help ensure Chill Out's continued success in the years to come.

For 2024-2025 we will focus on transferring knowledge to our younger members, while simultaneously continuing our approach from this season. We have a strong class of rising Seniors who want their experience to feed future team success and not just graduate with them.

This, combined with the expertise of our highly experienced mentors, will help us achieve even more. I am extraordinarily proud of our team and excited to see how we perform next year!

Apollo Graves - Captain



2023-24 IN REVIEW



18,000

student hours committed to the team during competition season



65

FIRST competitions completed by graduating seniors



22

outreach events in the past year



400%

growth in financial supporters



Scan to go to our website



2023-24 was the most successful season in our history!



25

returning members



19

new members



16

mentors



2,500

volunteer hours coaching & mentoring students during competition season



66%

amount increased of women teammates



4

high schools represented on the team

Crescendo Game Highlights

Season Goals Met

- ✓ Make a robot that finds its niche to qualify for District Champs.
- ✓ Have a reliable sustainable team that can go to World Championships.
- ✓ Have quick and reliable communication between leadership and members.
- ✓ Have a plan for everything, avoiding last minute decisions.
- ✓ Bring in 15 new members.
- ✓ Increase member engagement and involvement.

Team Memories

- Hearing the team cheer over the livestream and joining in from my living room. - *mentor*
- Going to Worlds. But if it had to be a specific thing probably winning that first playoff match in the Newton Division.
- Late night scouting sessions.
- Water game! Water game! Water game! The whole crowd chanting that together was awesome.
- Going to comps and being humbled by how amazing the students were. - *mentor*
- Helping the scouting team understand UX for their scouting app (15min storyboard talk!). - *mentor*
- Being with the team and Squirrels for Einsteins, being with friends made the whole experience even cooler! It really made me feel like I'm a part of something.
- As a former athlete, I've had the enormous pleasure of further defining what "winning" means to me. - *mentor*
- Team bonding day with the Royals!
- Pool shenanigans at the DCMP.
- The team bonding, from shenanigans and random conversations to random acts of kindness from people throughout the FIRST community.

#2
IN PNW

Top 1%
IN THE WORLD

#24
IN THE WORLD OF
3,474 TEAMS

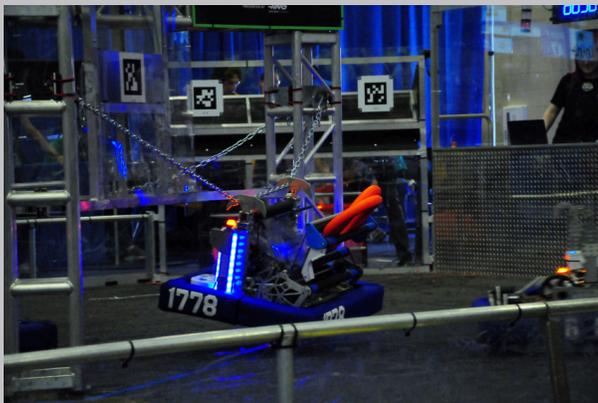
50,000
TEAM DISCORD
MESSAGES

4,000
PEOPLE
ENGAGED VIA
OUTREACH

“I wish I would have joined sooner.” - *new member*

What is FIRST Robotics?

Founded by Dean Kamen, For Inspiration and Recognition of Science and Technology is an international youth organization that operates the FIRST Robotics Competition, FIRST LEGO League Challenge, FIRST LEGO League Explore, FIRST LEGO League Discover, and FIRST Tech Challenge competitions. We call FIRST Robotics Competition the ultimate Sport for the Mind. High-school student participants call it “the hardest fun you’ll ever have.” Under strict rules, limited time and resources, teams of students are challenged to raise funds, design a team "brand," hone teamwork skills, and build and program industrial-size robots to play a difficult field game against like-minded competitors.



We are proud to have received several awards in 2023-24

The **Autonomous Award** celebrates the team that has demonstrated consistent, reliable, high-performance robot operation during autonomously managed actions. Evaluation is based on the robot’s ability to sense its surroundings, position itself or onboard mechanisms appropriately, and execute tasks. The **Imagery Award in honor of Jack Kamen** celebrates attractiveness in engineering and outstanding visual aesthetic integration of machine and team appearance.



All awards won by Chill Out 1778 2023-24



Bonney Lake Finalist Alliance photo with teams 3663 and 8896

2023-24 Awards

Finalist

Glacier Peak
Bonney Lake

Autonomous

Bonney Lake

Imagery

PNW District
Championship

Chill Out Class of 2024



Ian O'Brien

Favorite part of FRC:

“The options with the team. Even though it’s just one club there is so much you can do, if you ever get tired of something or want to try something new it’s super easy to help out in a different aspect. In one season, I’ve been able to help design, build, and fund the robot without knowing a lot of that beforehand.”



Amanda Margo

Favorite part of FRC:

“The community, how amazing everyone is in making others better, and how supportive people are of other teams. I’ve made so many friends in FIRST because of the positive environment it creates. FRC is really a collection of some of the sweetest and smartest people in the world.”



Isaac Mach

Favorite part of FRC:

“The community. Even though we’re all on different teams, we’re almost all good friends and always cheer each other on even when we’re playing against them.”



Simon Brannigan

Favorite part of FRC:

So many things he couldn’t decide.

Leadership Reflections



“Team 1778's remarkable achievement of winning two judged awards and being contenders for several others this year reflects our thorough approach to awards in the competitive realm of FIRST Robotics Competition (FRC). Our "Judges 101" training equipped us with skills to effectively communicate our achievements and values to judges, enhancing our confidence and presentation abilities. We distinguish ourselves as deserving recipients of recognition, demonstrating not just technical expertise but also strong communication skills by being able to encompass aspects such as robot design, team dynamics, community engagement, and overall impact. Our adeptness at articulating our accomplishments and values likely set us apart from our peers and demonstrates strength essential for success in FRC's awards arena.”

LILIA PEARSON MAAS - VICE CAPTAIN

“One of the most significant improvements we made this year was in our scheduling process. Unlike previous years where scheduling was lacking, this year we prioritized it as a crucial aspect of our workflow. The main challenge we faced was understanding the unpredictable and adaptable nature of the season, which made it difficult to create rigid schedules. Attempting to meticulously plan out the entire build season led to delays, prompting us to adopt a milestone-based approach focused on meeting deadlines rather than perfecting every detail. To ensure the success of this method, we emphasized communication, implementing end-of-meeting recaps and providing a readily accessible schedule for the upcoming two weeks. Additionally, consistent communication with project leads allowed us to coordinate tasks effectively and adjust timelines as needed to meet our goals. To the team's credit, this required an exceptional awareness and commitment to completing our goals.”



AIDAN WEBB - SERGEANT AT ARMS



“The mentality of “strategy first” was adopted after our Charged Up (2022-23) build season ended in a way that we were not proud of, and felt we could improve upon. The idea of solidifying how we want to play the game before we start designing the robot and then executing that strategy really helped give the build season momentum and feel more organized; we all knew what our common goal was besides “score points and win matches”. It made a massive impact on our team's performance at competitions, and looks really promising as an “evergreen” mentality that we can keep in the team for years to come to keep the team performing at the extremely impressive level we did this year.”

ELI WINCKLER - DESIGN LEAD

“During competitions, scouting provides vital information about other teams, aiding in strategy development and alliance selection. This year, we aimed to streamline our scouting system and enhance its accuracy due to limitations with the previous system. We successfully utilized *Chilly Scout*, software developed by members of the team, at all 2024 competitions. Achieving over 90% accuracy, we gathered 15,000+ data points. This data significantly influenced our matches, leading to finals appearances in two competitions. From the scouters that use this software, “it's a lot better than the Google forms last year” and “it's easier and quicker to use.” *Chilly Scout* is a progressive web application that scouters use to collect data and send to the backend server, which then sends it to a Google Sheet to be manipulated by Scout Leads. It's built with a React framework for the front end and uses a custom library to make a UI that's easy to use and functional, no matter what device you are using. Additionally, the usage of service workers allows it to be functional without data or wifi. The backend was a simple Node.js server that was never down during any competition.”

RAIEN ELLISTON - SECRETARY & LEAD SCOUT



2023-24 Financial Report



**MARIA GAVIOLA -
TREASURER**

This season, our team focused on diversifying and growing our sources of income. Last season, nearly 35% of our total fundraising came from a few key angel sponsors, which limited our financial stability. To ensure the long-term sustainability of our team, it was crucial to cultivate relationships with a broader range of sponsors who would support us in the years ahead.

Through the hard work of many members, who utilized their connections in the community and built new ones, we met our original \$40k goal. In fact, we exceeded our \$74k stretch goal, raising over \$80,000! This significant achievement allowed us to attend the FIRST Championship in Houston without straining our finances.

We successfully combined business community sponsorships, grants, volunteer time matches, donations of services and goods, and personal donations from many supportive friends and family members. Throughout the season, we increased our number of supporters by over 400%.

As we head into the next season, the team is well-positioned for a strong start with a large base of friends and fans!

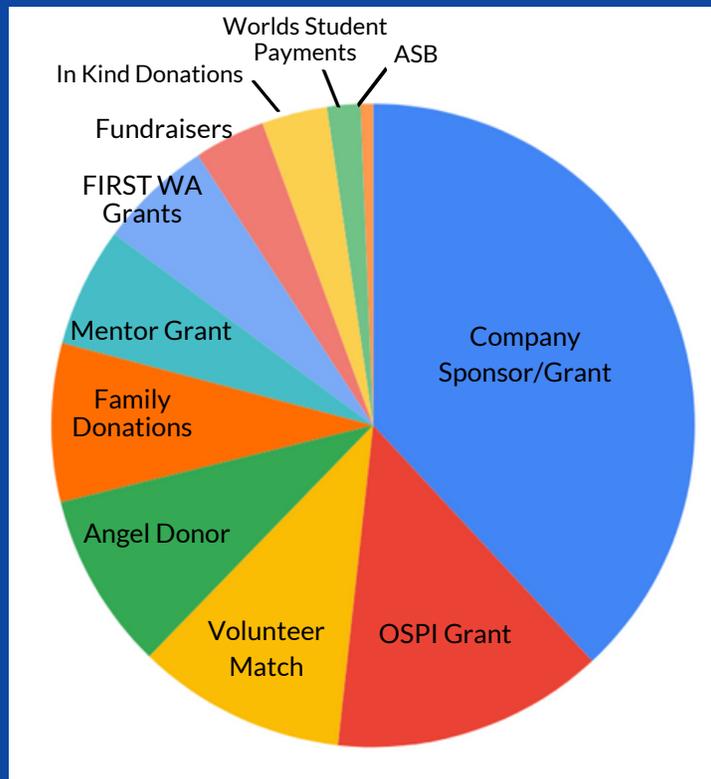
Donations to the team can be made online through FIRST Washington.

Donate

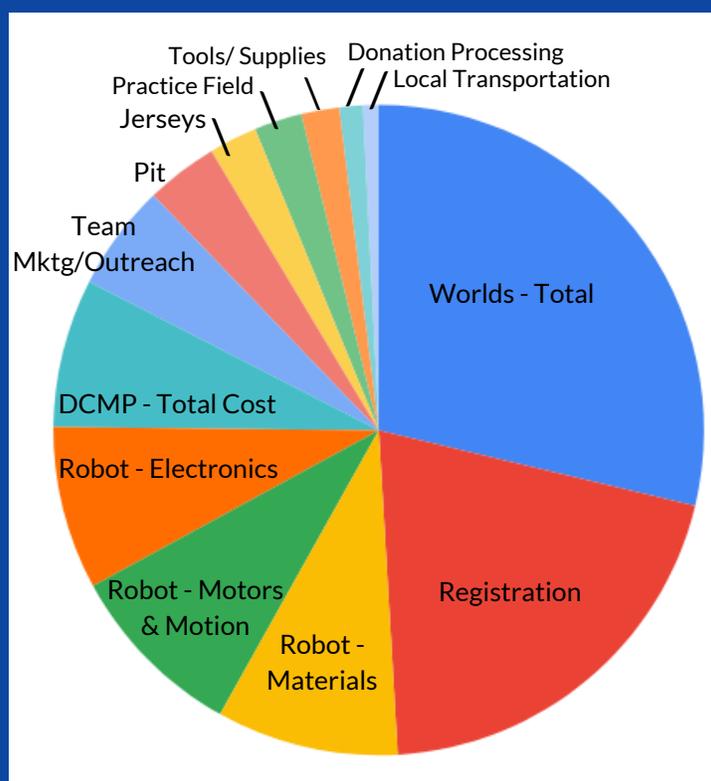
FIRST WA is a 501(c)(3) non-profit organization. Contributions are tax-deductible to the extent allowable by law.

At a Glance:

TOTAL INCOME



TOTAL EXPENSE



More Than Robots

Chill Out is more than just a robot competition. What else was cool this year?

Design Team

Increased CAD participation by 300%, with more than five students collaborating on robot design and completing it faster than ever before.

Leadership Team

Enhanced the subtler side of robotics skills, leading Judges 101 to help students become comfortable presenting. This had an immediate impact, with the team winning two judged awards.

Business Team

Expanded disciplines to include Graphic Design, Communications, and Sponsor Relations. Recruited a Graphic Design mentor who is a certified expert in professional graphics software.

Electrical Team

Focused on resiliency in electrical design and conducted routine inspections, resulting in zero in-match electrical failures.

Outreach

Our outreach efforts became a team-wide initiative, more than doubling our events from last year and reaching four times as many people.

Programming Team

We handed off the robot to programming two weeks before our first event, allowing fine-tuning that led to noticeable improvements and winning the Autonomous Award.

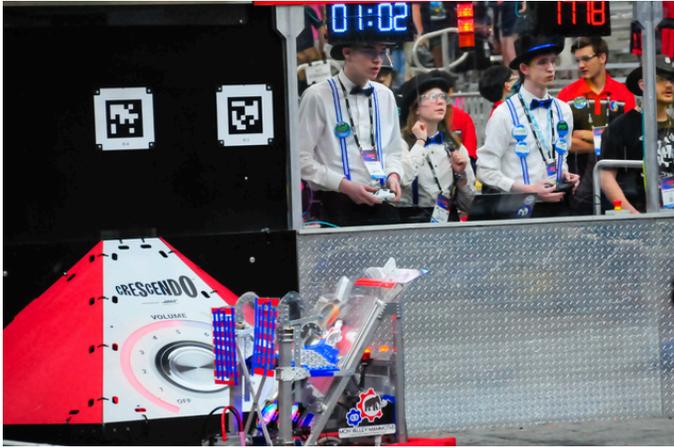
Fabrication Team

Prefabricating spare parts, including a full spare subsystem, became standard practice. This allowed us to complete an intake replacement in under 13 minutes, at Worlds no less.

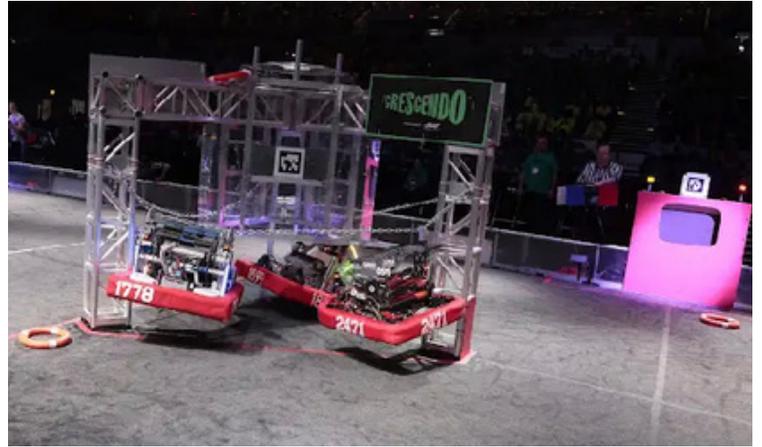
Scouting Team

Launched a custom app, *Chilly Scout*, our new scouting tool with a mobile UI and offline/online data retention. This is a major upgrade from using paper and Google Sheets.

2023-24 Highlight Reel



Drive team at World Championships



Triple climb at PNW Championship with teams 1899 and 2471



Rotary Gala with our robot, Zappy Feet

plus!

Video interview "Behind the Bumpers" on YouTube



Looking Ahead...

2024-25 and offseason

- ✓ Recruit new members
- ✓ Increase sponsorships
- ✓ Introduce FIRST to community

Scan to go to our website



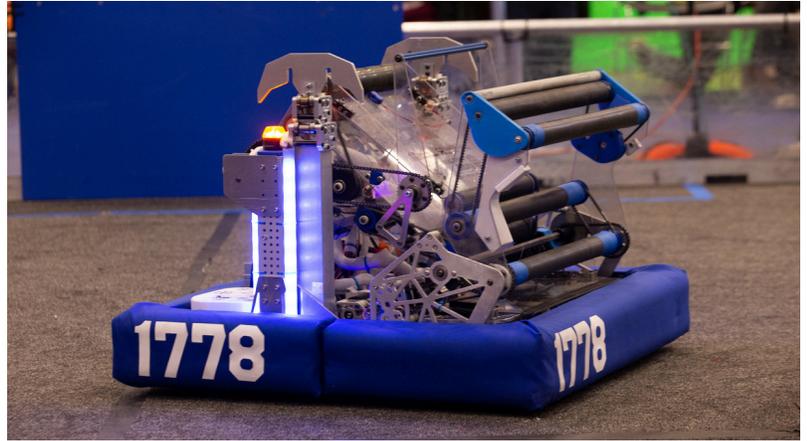
Find complete details on our website

Stay up to date by checking our website

chillout1778.org



Team hair dying to celebrate ualifying for Words



Zappy Feet close up

Chilly



Our Beloved Mascot



Chilly in the mascot parade at PNW Championships



Chill Out 1778 at the World Championships in Houston, TX



Drive team with the Tiara Award at Glacier Peak, celebrating women in STEM

Donate

Follow Us:   



The “It” Factor

STEVE WINCKLER - COACH

In the 2022-23 season, before DCMP, our student leaders discussed, "What if we qualify for Worlds? Were we prepared with approvals and travel plans? Did we have the funding? Did we have the energy?"

Even before qualifying, they decided they would not attend Worlds. This decision proved fateful, as the team did qualify but didn't go. In their hearts, they knew it was best for the team. It wasn't an opportunity lost; it was an investment for the team's future. They bet on themselves, using last year as a launchpad to turn a good season into a truly great one.

Early in the season at the practice field I recall talking with Kyle, the Head Coach of Jack in the Bot (FRC #2910). He knew about our decision the previous year, and asked, "Is your paperwork approved for Districts?" I replied, "Yes." Then he asked, "Is your paperwork approved for Houston?" Again, I answered, "Yes." Kyle looked at our team and robot and said, "Good, you're gonna need it!" Seeing his serious expression, I thought, "Oh gosh, he's not kidding." When a team that goes to Worlds every year and knows what it takes to compete there tells your team to "be ready," it means something.

It was only after Worlds that I talked with Kyle more about that conversation. He shared, "It wasn't just the robot; it was your kids. They were hungry for it. It's a certain 'it' factor."

As mentors, this year was about keeping up with that 'it' factor. We showed up because they showed up. We put in extra hours because they put in extra hours. That's what a team is—a group of people showing up for each other to achieve a common goal.

If you know me, you know I don't like talking about things out loud before they happen. But everyone knew Worlds was the goal, we just didn't have to say it out loud. Everyone just did their part to make sure we were ready, on and off the field.

On behalf of the entire mentor team, **Chill...Out!!**

Thank You to Our Leadership!

Student Officers

Captain

Apollo Graves

Vice Captain

Lilia Pearson Maas

Secretary

Raien Elliston

Treasurer

Maria Gaviola

Sergeant at Arms

Aidan Webb

Coaches & Mentors

Andrew Hay *

Brian White

Brie Nakamura

Cameron Graves

Casey Auvé

Christopher Kelly *

Hillel Coates *

Jeff Rodgers

John Elder *

Kathy Leach

Maura McDougall *

Patti Rodgers ^

Sachi Webb

Steve Winckler ^

Tim Leach

Todd Rosenfelt

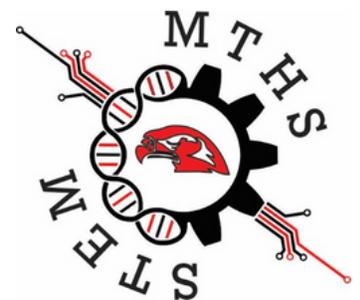
^ Lead Coach

** FIRST Alumni*

We are grateful for the support of our hosts!



**Edmonds
School District**



We are fortunate to have use of the shop at Mountlake Terrace High School and practice field at Former Alderwood Middle School.

Thank You 2023-24 Sponsors

\$5,000+

ALDERWOOD TERRACE

Rotary



Washington Office of Superintendent of
PUBLIC INSTRUCTION

\$2,000 - \$4,999



Foundation for
**Edmonds
School District**



\$1,000 - \$1,999



Kathy & Tim Leach

Robert Miller

Thank You 2023-24 Sponsors

\$500 - \$999



TAP Plastics



Sellen



Rachel Kosmin

FRIENDS OF CHILLY

- Fast Signs of Lynnwood
- Joseph McLaughlin Churchill Management Group
- Lake City Western Vigilantes
- MOD Pizza
- Puget Sound Plumbing and Heating
- Spittin Llama Studios
- Stellar Kids Dentistry
- Terrene, Inc.
- Amy Barrett
- Anonymous
- Anne Sheets
- Arzu Yuksel Suzener
- Bruce Murphey
- Casey Auve
- Claire Lawry
- Courtney Spadaro
- Curt and Margie Webb
- Deb Higgenbotham
- Dee Anne Sokolowski
- Emily Butchers

- George Siemens
- H. Duane Simmons
- Jacob, Kendra, Adilee, Madilyn, & Zoey
- Karen Madsen
- Keith Collinridge
- Larry & Kazuko White
- Leah Rankin
- Margot Ray
- McGillivray Family
- Mike & Julie Muchlinski
- Nikka Gaviola
- Pearson Maas Family
- Robert VanBuskirk
- Ron and Jackie Rodgers
- Sheryl Bridgeford
- Tammy Carroll
- Thomas Anderson
- Josh & Jess Webb
- Wendy Juillerat

MENTOR GRANTS & VOLUNTEER TIME MATCHING



Microsoft



Expedia

FIRST **DIVE** SM PRESENTED BY
Qualcomm

See you next year!

