

***FIRST* Impact Award - Team 6574**

2024 - Team 6574
Team Number
6574
Team Nickname
Ferradermis
Team Location
Whitewater, WI - USA
Describe the impact of the <i>FIRST</i> program on team participants within the last 3 years. This can include but is not limited to percentages of those graduating high school, attending college, in STEM careers, and in <i>FIRST</i> programs as mentors/sponsors.
Every student no matter how long they have spent on the team is impacted by Ferradermis. During their time with us we have given them a community to be fully themselves in; we have been their safe space. They have gained skills that will last a lifetime. 100% of the 35 people in the classes of 2022-2023 who have been on Ferradermis graduated highschool, 71% are attending college, and 79% of those in college are in STEM fields. On top of that 2 of those graduates are actively mentoring FRC teams.
Describe your community along with how your team addresses its unique opportunities and circumstances.
The poverty level in Whitewater is 32.5% which compares negatively to the WI average of 10.7%. Because of this we make sure no student on 6574 goes unfed or is unable to travel because of finances. We make our community our first priority giving to them through education and volunteer work. We frequently give demonstrations at our public library, donate presents to families in need, raise funds for the Family Emergency Fund, and volunteer with Kiwanis on local service projects and fundraisers.
Describe the team's methods, with emphasis on the past 3 years, for spreading the <i>FIRST</i> message in ways that are effective, scalable, sustainable, and creative. How does your team measure results?
We spread the <i>FIRST</i> message within our school through Robotics Week where we reach over 650 people. We've also worked on spreading <i>FIRST</i> to neighboring areas through presenting to the Rock Valley Conference Student Councils reaching 11 nearby schools without teams. We also represented <i>FIRST</i> WI at the SLATE Tech Conference where we reached over 863 educators in STEM fields. We spread the <i>FIRST</i> message to our legislators through Advocacy Day, helping convince them to increase robotics funding.
Please provide specific examples of how your team members act as role models within the <i>FIRST</i> community with emphasis on the past 3 years.
Our students are always looking to make others' lives easier. From volunteering at FLL events to loaning out members to other teams to fulfill their requirement for an all-female drive team at TWIST, our

members are always offering a helping hand. When running concessions at the Laser Lights Off-season, we demonstrate gracious professionalism by providing food coupons for volunteers. Presenting to new teams and new members at FRC Training Day allows us to help others begin to engage with FIRST.

Describe your team's initiatives to Assist, Mentor, and/or Start other *FIRST* teams with emphasis on activities within the past 3 years.

In 2022 we restarted FLL in our middle school; this has grown to 2 teams at that school alone, and we have solid plans to start FTC there next fall. Our elementary FLLs started in years past, and we have continued to support and mentor them, fundraising for Spike Primes and helping them present to DKG who ended up sponsoring them. In 12/23 we also gave 2 presentations to FRC teams both of which were published. Due to our efforts teams have become increasingly comfortable reaching out to us.

Beyond starting teams, what initiatives have you done to help inspire young people to be science and technology leaders and innovators? What results have you seen from your efforts in the past 3 years?

We recognize that leadership starts with our youth. We value our FLLs immensely, arranging for them to visit us at the WI Regional and reffing their in-house competitions. We went to Mukwonago to cheer on our teams in their Regional and volunteered at the FLL Sectional. We work towards getting more youth involved in STEM by annually demonstrating at our elementary school STEAM nights and this year at Ghouls Night Out. We hosted FLL library events to encourage more kids to get involved in FIRST.

Describe the partnerships you've created with other organizations (teams, sponsors, educational institutions, philanthropic entities, etc.) and what you have accomplished together with emphasis on the past 3 years

We have forged strong relationships with teams 6421, 8701, 930, and 1259 through our open alliances and built on those partnerships through scouting alliances. We have enhanced our partnership with our school by presenting to various classes, working with the school shop teachers to improve the quality and safety of our shop and by working on service projects with school clubs such as Theater and Key Club. In return our school has shown us immense support and been one of our biggest sponsors.

Describe your team's efforts in the past 3 years to promote equity, diversity, and inclusion within your team, *FIRST*, and your communities.

In our 21-22 season Ferradermis was 35% female, and that has now increased to 74%. We have volunteered at Tech-Savvy, an all girls stem education day, to teach them about FIRST and how they can get involved. We have presented to Girl Scouts in the past, and in 2023 we decided to go even further by helping 26 Girl Scouts from 9 troops earn all 3 robotics badges. We have created a safe space for all students including those who identify as LGBTQ. We make sure no one is seen for their differences.

Explain how you ensure your team and the initiatives you have created will continue to run effectively for the foreseeable future

We have been securing our future by working with our school's alumni and the Community Foundation to create a long term funding system that will eventually allow us to take out 25K a year to fund our team as well as start up others. Just last year we secured a permanent workspace in our school. We have been working toward better documentation including the book of Ferradermis and tracking things through Basecamp. This winter we started a Parent Booster Club to support robotics K-12.

Describe your team's innovative strategies to recruit, retain, and engage your sponsors within the past 3 years

We recruit sponsors through attending local events, mailing and emailing businesses, and participating in our local farmers market. We were integral in forming a Tech and Engineering Advisory Board which built a partnership between STEM businesses, 6574, and our shop teachers. We retain sponsors by inviting them to events and our open house during a work day. We send a monthly newsletter and post on social media. This year we created a fifth sponsorship level, and we ALWAYS write thank yous.

Highlight one area in which your team needs to improve and describe the steps actively being taken to make those improvements.

Although we are extremely diverse in terms of gender, we are lacking in terms of racial diversity with only 14% of our team being people of color. This is a huge gap because of the language barrier we face in Whitewater. We are actively working towards fixing this gap by presenting to the Spanish speaking classrooms at our school, as well as actively searching for a Spanish speaking mentor.

Describe your team's goals to fulfill the mission of *FIRST* and the progress you have made towards those goals.

We understand that FIRST builds people, not just robots, and we strive to do the same. In 2023 we created a new team lead system and held weekly leadership meetings to discuss how to best help our members. We have frequent team socials before and during the season to strengthen our bond. Our members have gained resilience knowing they have a strong network of people to catch them, communication skills from explaining what they do at every meeting, and confidence from frequently presenting.

Briefly describe other matters of interest to the *FIRST* Judges, including items that may not fit into the above topics. The judges are interested in learning about aspects of your team that may be unique or particularly noteworthy.

We are involved in our community in every way possible. We show off our team in two parades each year; just this year we made a special snowproof parade bot with durable tires. This year we reached 9000 people by demonstrating our robot at the county fair. We partner with the UW-Whitewater marketing department, the Whitewater Community Foundation, and school alumni to manage the foundation's Google ad grant to drive funds to our endowment.

Judge Feedback

Who/When

Feedback

Mar 02,
2024
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AM EST

Ferradermis would like to know what our strongest and weakest points are throughout our Impact Award submission, but specifically the executive summary and how it can be improved.

An area the team has an opportunity to improve.

Something that really impressed the judges.

Essay

Ferradermis may mean iron skin, but what does it mean to our team? IRON: We forge a strong and lasting impact on our community. Our team is magnetic, and we draw people together. SKIN: We teach

compassion and shape lifelong connections. We leave an imprint on every person we reach. Community is the number one priority of Ferradermis. Our community is made up of the people, places, and systems that we impact. We forged a community with a legacy of inclusion, leadership, and resilience for the future. TEAM- Ferradermis, team 6574, is a community in itself. We are built of 28 dedicated students and 20 mentors who bring a multitude of skill sets to the team. We give students a safe space to learn their potential without fearing mistakes. In 2023 we created a new team lead system to help with efficiency. Last year in our executive summary we discussed our biggest struggles being communication and productivity. Through this new system we have solved these problems almost completely. Weekly, team leads meet to discuss strengths, weaknesses, and issues. We also have daily, full team meetings where every member shares what they have been working on. This holds our teammates accountable while leaving them with communication skills and confidence from frequently presenting. Team socials remain crucial to building the community within 6574. We have frequent team socials before and during the season to strengthen our bond. Our members gain resilience knowing they have a strong network of people to support them. 6574 retains an unbending community of females. In our 21-22 season Ferradermis was 35% female, which has now increased to 74%. We ensure girls in our community see representation starting young. We volunteered at Tech-Savvy, an all-girls STEM day camp at UW-Whitewater, to teach them about FIRST and how they can become involved. To expand STEM pathways for groups focused on building a better world, we presented to Girl Scout troops, and in 2023 decided to go even further by helping 26 Girl Scouts from 9 troops earn all 3 robotics badges. Through our communication with other FRC teams, we were able to help two other teams in the TWIST off-season event fulfill their all female drive team requirements. We create a safe space for all students including those who identify as LGBTQ. Ensuring that everyone has a place in FIRST and robotics is an integral part of Ferradermis. We combat the history of women and LGBTQ individuals not having a place in STEM by focusing on being open in our recruitment strategies; We ensure that every member feels comfortable and respected in every aspect of 6574. ALUMNI- Every student--no matter how long they have spent on the team--is impacted by Ferradermis. 6574 gives them skills that last a lifetime. 100% of the 35 people in the classes of 2022 and 2023 who have been on Ferradermis graduated high school, 71% are attending college, and 79% of those in college are in STEM fields. Furthermore, 2 of those graduates are actively mentoring FRC teams. One of the main ways we stay connected and informed about our alumni is through documentation. In the past three years, we made big steps toward better documentation by creating the Book of Ferradermis. Just this year we implemented a new project management and communication app for the team. FAMILY- Ferradermis is fueled by family. Recently 6574 opened up a new way for parents and the community to build the sustainability of our team. A new Robotics Booster Club, put in place to promote, aid, and extend FIRST for K-12 students in the district. SCHOOL- We have enhanced the community within our school by presenting to Tech Ed classes, multilingual classes, and classes at the middle school. We collaborate with our school shop teachers to improve the quality and safety of our shop. We also work on service projects with school clubs such as Theater and Key Club. In return our school has shown us immense support and been one of our biggest sponsors. We are treated as a varsity sport, allowing us to letter and providing us with funding. Just last year we secured a permanent workspace in our school. We spread the FIRST message within our school through Robotics Week where we reach over 650 people. During our Robotics Week we present daily announcements often with fun facts, dress days, and an assembly where we give a presentation and play FRC related games. It helps share the message out in a fun and informative way. YOUTH- We recognize that leadership starts with our youth. We value our 5 official and 6 in-house FLLs immensely. On top of mentoring them and reffing their in-house competitions, we arrange for them to visit us at the WI Regional to see a full scale FRC event. We traveled to Mukwonago to cheer on our FLL teams in their Regional and volunteered at their Sectional. 6574 works towards involving more youth in STEM by

annually demonstrating at our elementary school STEAM nights and this past year at Ghouls Night Out, a youth Halloween event. We also hosted FLL library events to encourage more kids to become involved in FIRST. Our central focus is to set young people up for their futures and to cultivate a culture of admiration and respect for STEM and FIRST. In 2022 we restarted FLL in our middle school; this has grown to 2 teams which will be replaced by an FTC starting in the fall. Our elementary FLLs, started in years past, receive continual support and mentorship from us. We also fundraised for Spike Primes and helped them present to DKG who now sponsor them. TOWN- We make building the community within our town a priority. 32.5% of Whitewater's population is below the poverty line. We do not see this as a disadvantage, but as something we can use our resources to improve. By giving every person in Whitewater access to FIRST, we are ensuring opportunities that lead to success. We host and run an annual open house in February. In 2024 the people reached by this event doubled. Open house is a live workday where community members are invited to come for tours of our workspace featuring presentations on each aspect of our team. The last stop on these tours is an FLL demo, where the FLLs engage with the community. This event, as well as our abundance of service projects allows 6574 to weld together a stronger community. We worked with Kiwanis to fundraise for a We-Go-Round, an accessible playground addition, and within our school sourced donations for the family emergency fund. During the holidays, we provide gifts for underserved families. Another way we give back is with our 3-D printing technology. This past fall we printed tangram outlines for math students at our elementary school to help them develop better pattern recognition. Last year we designed miniature game pieces for the WI regional VIPs. We are also in the beginning stages of making a modification for a child's prosthetic to help this particular child with fine motor skills. Ferradermis shows FIRST to our town by participating in every event possible. This year we reached 9000 people by demonstrating our robot at the Walworth County Fair. For increased visibility, our logo is displayed in our town's Chamber of Commerce spirit corner, and we make a concerted appearance at the Whitewater Fourth of July and holiday parades. 6574 has been forging our future by working with our school's alumni and the Community Foundation to create a long-term funding system that will eventually allow us to take out 25K a year to fund our team as well as start up others. We partner with the UW-Whitewater marketing department, the Whitewater Community Foundation, and school alumni to manage the foundation's Google ad grant to drive funds for our endowment. We recruit sponsors through attending local events, mailing and emailing businesses, and participating in our local farmers market. Our team was integral in forming a Tech and Engineering Advisory Board that built a partnership between STEM businesses, 6574, and our shop teachers. 6574 retains sponsors by inviting them to events and our open house. We send a monthly newsletter and post on social media to keep them connected. This year a new system for our sponsorship was created with a fifth level. 6574 makes sure to show appreciation by ALWAYS writing thank yous. FIRST- Ferradermis has grown to be a team to look up to in the FIRST community. We forged strong relationships with teams 6421, 8701, 930, 1259, 8122, and 1714 through our open alliances and scouting alliances. We grow this community by helping other teams whenever possible. Presenting to new teams and new members at FRC Training Day allows us to help others begin to engage with FIRST. In 2022 we spread FIRST through presenting to the Rock Valley Conference Student Councils reaching 11 nearby schools without teams. We continue to reach out to them through emails and letters. We spread the FIRST message to our legislators through Advocacy Day. Last year we talked to 4 legislators about increasing funding from the DPI grant, and this resulted in their raising the amount from \$500,000 to \$750,000. This year we lobbied beforehand at the capitol, met with 6 local legislators, and enjoyed the opportunity to reach an overwhelming amount of people while interviewing on the WMTV 15 news. Through advocating, our senator has come to our open house, our library events, and our regionals. We recently worked with FIRST Wisconsin to present and demo at SLATE, a conference for ed-tech teachers. Through this we reached over 860 possible first mentors, and we have been keeping in contact through email. We

impressed FIRST Wisconsin enough to invite us to another teacher conference, WTEA, to promote FIRST. By participating in events such as these, we plan to find the mentorship needed to start teams in communities without access to FIRST. Ferradermis...Iron-skin. Our drive comes together into a stronger and more personal community. Our team is the embodiment of iron skin, but unlike iron, WE DON'T RUST! ;

