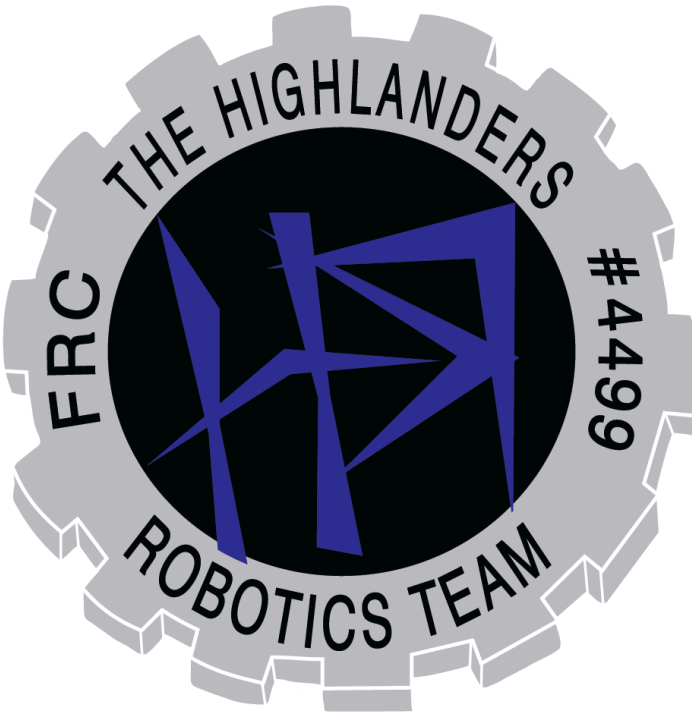
2024 Business Plan



The Highlanders

Team 4499

Fort Collins, Colorado

TEAM MISSION STATEMENT

The Highlanders' (4499) mission is to provide youth with the opportunity to explore STEM, we strive ahead in a student-led program.

TEAM HISTORY AND GROWTH

In 2007, the Highlanders FIRST Lego League team started in Fort Collins, Colorado, composed of 8 kids that met in the Highland Hills neighborhood, thus the name. Across town, another FLL team formed at the same time and both teams moved into FTC in 2010. After two years in FTC, the teams joined together to form a FIRST Robotics Competition team 4499, The Highlanders in 2013. To support our community-based team, 4499 mentors created a 501(c)3 corporation, Neaera Robotics with the goal of spreading STEM outside the confines of a school during the team's rookie year. The organization was formed with The Highlanders in mind, expanded across the front range, funding 10 FIRST Teams and encouraging youth in the area to pursue robotics and STEM since its inception. Neaera Robotics brings today's opportunities to tomorrow's engineers.

The Highlanders started with 20 team members from the FLL and FTC teams. While we maintained a similar size through the FIRST Steamworks season, 2018 saw us drop down 6 team members. We relied heavily on the younger students during this year and through this transition period, created a new model that allows the small to be mighty. By using our smaller size as an opportunity to further develop skills and prepare for future leadership roles, our students are involved in all aspects of our team, both technical and community outreach. Our TARTAN Development model further develops this. The 2019 season saw 4499 grow to 11 students. Through recruitment, we have maintained that size into the 2022 season. In the 2023 season, we overcame our low point and are back to 20 members.

TEAM ORGANIZATIONAL STRUCTURE (See Appendix A)

Our organizational structure cultivates well-rounded engineers. Students have roles on both the Operational Safety & Excellence and Strategy branches, which is further explored in our TARTAN Leadership Model. Our structure allows 4499 alumni to flourish in their future, with 94% of our students attending college and 6% in the armed forces.

RISK ANALYSIS

- Strengths: As a student lead team, every member is extremely dedicated and seizes the opportunity to learn new skills through self direction.
- Weaknesses: Our robotics team has faced the weakness of losing experienced members, making knowledge transfer difficult. We're working to address this and ensure a successful transition for all team members.
- Opportunities: This year we have focused heavily on outreach, forming plans to recruit new members to our team through promotional videos. This season we have added 13 new members so far.
- Threats: Loss of knowledge in the robot aspect of the team. This threatens our ability to ensure our team keeps growing technical skills as time moves on.

MARKETING

We use our outreach and volunteering as a way to gain new members in the team. Approximately 50% of our current team joined through information given at our demos. The Highlanders mentor twelve FLL teams, as well as assisting four others, and some of these students go on to become Highlanders. We used these as opportunities to spread STEM, as well as inspire the next generation of engineers through the Highlanders program.

TEAM SPONSORSHIP

4499 is mainly funded through sponsorship from local and national companies. We offer different levels of sponsorship, with more advertising and publicity available for higher levels of commitment. As a 501(c)(3) non-profit company, we offer tax-free donation benefits to our sponsors and donors. Our closest relationship is with our largest sponsor, Neaera Consulting. To generate donation funds, Neaera hires team members and alumni as interns, returning a portion of their profits back to the team. In the past nine years, they generated over $150,000 in this manner. 4499 also encourages all team members to attend community events, ranging from visiting sponsors to local schools and FLL tournaments.

RELATIONSHIPS

4499 retains members and mentors by creating a family-like relationship within the team. We meet year-around, training new members and learning skills during the off-season. Students pursue personal interests over the off-season, inspiring the continued acquisition of STEM skills they cannot develop during the season. During the season itself, team families bring in meals, which allows us to eat around one table and encourages those close bonds between members and mentors. The success of this process is evident in the 39% of alumni who are registered mentors. In our community, the relationships we form are about sharing our love of STEM and robots. We have worked with the local children's museum to demo during special events, and with the local Boys and Girls club to attend their STEAM expo. At both of these, the people who attended were excited to see what new robot we brought this time, having grown to expect us to be there with something amazing. In our summer camps, we ensure that we have enough team members to allow us to create small working groups for students. This allows them to retain more information and inspires them to continue through FIRST. Through internships, facility tours, and demos, 4499 ensures that our relationship with our sponsors is more than financial support, but true partnerships valued for educational opportunities and mentorships.

DEPLOYMENT OF RESOURCES

To spread awareness of FIRST, 4499 constantly puts aside resources for the numerous community events we host and participate in. For many events, such as our summer camp programs, team members, parents, and mentors give their time in order to ensure successful events. Under the non-profit umbrella, 4499 sets aside team resources to start new FIRST teams. In these past three years, we switched focus, pushing more of our resources into our expanded community, while maintaining our local presence. We have reached out to 2 Boys and Girls Clubs in Northern Colorado, starting and mentoring these FLL teams. For these teams we provided the Lego Mindstorms kit, table and supplies for the program. Overall, we have funded

10 FIRST teams and mentored 18 FIRST teams in JFLL, FLL and FTC. We also created KILTS (Kits that Inspire Leadership and Teamwork in STEM), science kits that we created and brought to an Indian orphanage, a refugee camp in Jordan, and schools in the underserved communities of Jordan. Through our TARTAN Community Model, 4499 determines our overall impact and how to best deploy our resources. The Highlanders spread the word of FIRST by exposing our team members to everything from programming to machining to marketing and videography. Through team events, members grow closer and learn more about themselves and their community, arising a wholesome experience inside and out of STEM.

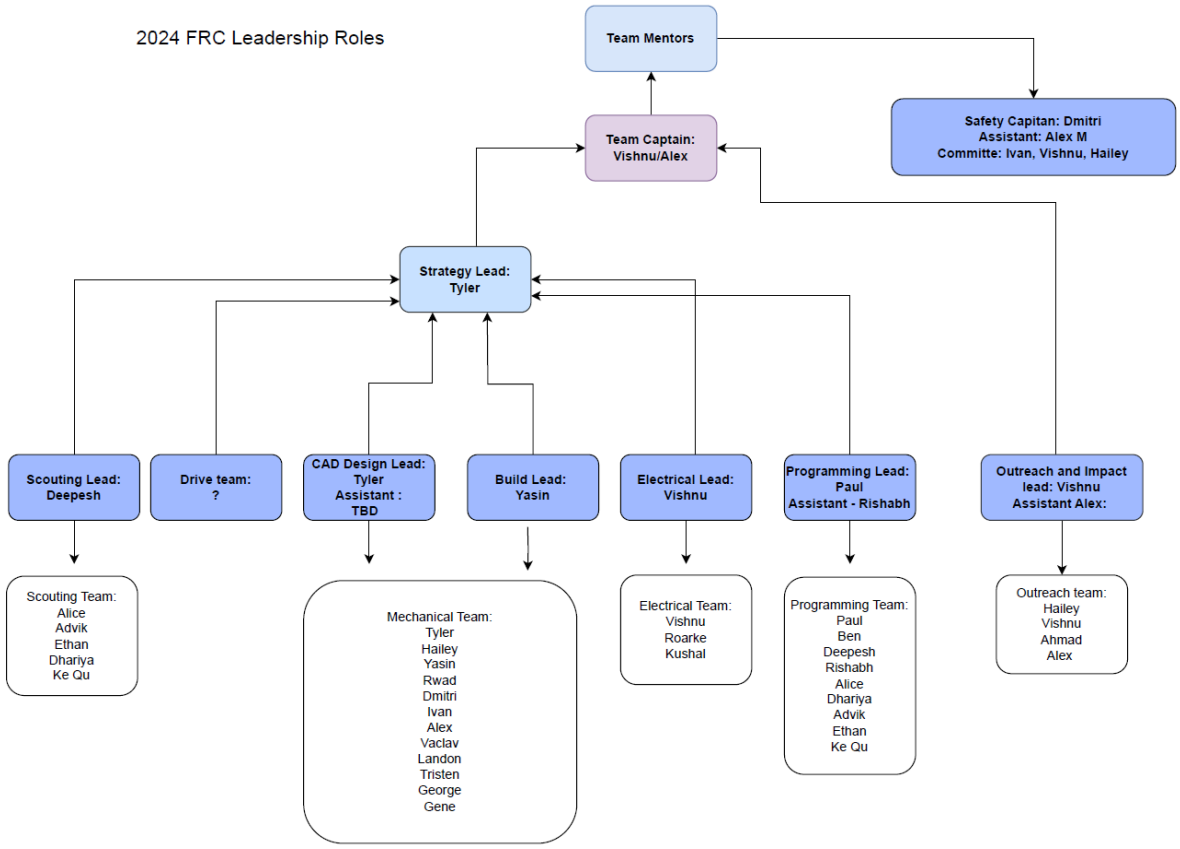
FUTURE PLANS

4499's mission directly affects the sustainability of our team and sponsors; our mission is tied to FIRST, as we strive to bring students into STEM using FIRST as an outlet. 4499 continuously raises awareness in our community, opening students' eyes to the possibilities in STEM through unique, hands-on learning opportunities. Although we actively participate in many events, we hope to increase our own events to raise awareness for STEM. We bring our community together through our events. In this area, we have been strong, but plan to expand more by participating in more parades, festivals, and expos. Current possibilities are endless, and as innovative ideas come to mind, 4499 will always pursue them. We will continue to be Lunch Ambassadors at our local FRC regional, where we reach out to traveling teams to join our lunches. We will also continue to help and respond to teams who reach out to us for help, like teams asking us to review business plans and Chairman's essays or put together their first swerve chassis. In FIRST, we run two FLL events and hold leadership roles in the FLL planning committee. By partnering with experts in the field of engineering and STEM, we learn about other job opportunities and create new team sponsorships.

FINANCIAL STATEMENT (See Appendix B)

Each year, 4499 strives to receive 50% of our income through grants and financial assistance. Mentors and members spend considerable time applying for grants during our off-season. On top of that, we maintain strong partnerships with our current sponsors. 4499 offers visits to current sponsors in addition to new companies. Our visits range from robot demonstrations to presentations, often developing into a combination of both. Finally, we have a tremendous family support structure and we usually raise 20% of our income from this means. Each year we raise $27,000 to cover expenses for 2 tournaments. On our attached budget, and in our business plan document, we itemize out our sources of costs and our plans to fund them. If our team qualifies for the World Championship, we fill out additional grant requests and reach out to our current sponsors to fund our added expenses.

APPENDIX A – *TEAM ORGANIZATIONAL CHART*



APPENDIX B – *FINANCIAL STATEMENT*

Expenses	Amount $
Initial Registration	$ 5,000.00
Cost to build field	$ 3,000.00
Robot build supllies	$ 6,000.00
Sensors/electrical equipment	$ 5,000.00
Handouts/brochures/bannners	$ 1,000.00
Total Initial registration	$ 20,000.00
2nd/3rd Event Registration	$ 6,000.00
Transportation of robot to event	$ 1,500.00
Total additional registration	$ 7,500.00
World Championship registration	$ 5,000.00
Transportation of robot to event	$ 2,000.00
Total World Championship	$ 7,000.00
Shop Equipment	$ 25,000.00
Additional shop supplies	$ 10,000.00
Total Shop Expenses	$ 35,000.00
Grand Total	$ 69,500.00