

Introduction

Every Highlander has been told that we are young, that we need more time to develop, and that we have some lofty dreams—and while all of these statements are correct, we know that these are what make The Highlanders interesting, innovative, and incredible. The Highlanders are predicated on four simple things: our mission, our community, our past, and our future. These four principles always keep our passions strong, our minds moving forward, and our teenage spirits alive.

Our Mission

We, The Highlanders, have a mission to provide students from elementary through high school hands on training, mentoring, and education in the fields of science, technology, engineering, and mathematics; to provide students with real life business interactions with firms in the community; and to practice gracious professionalism, teamwork, and innovation. To accomplish this mission we have implemented a feedback loop we like to call the *Cycle of Success*. Our *Cycle* takes in students of any qualifying age and places them in the level of FIRST most appropriate for them, and as they grow they will progress up the levels, FLL to FTC to FRC, eventually graduating from high school and moving on to college. This ends the receiving end of our *Cycle* and begins the start of the giving back portion of our *Cycle*. After college, each member will come back to Neaera Robotics and mentor their own FIRST team—ultimately completing our *Cycle of Success*. Our Neaera graduates will teach future Highlanders the foundation stones of FIRST and give them real, first-hand examples of how FIRST will change their lives for the better.

Give Back/Community Outreach

Our team has received many grants and sponsorships from local and national corporations. We show our thanks and appreciation at the end of the season through our finished robot, but in order to fully thank these corporations, we give back to our community and FIRST as a whole. At the end of last year's season, our team completed Dean's Homework, spreading the word of FIRST. Making that video was a completely different experience than fabricating parts or programming, but we still had a blast! One of the biggest events that we coordinate that combines both FIRST and the community is the Liberty Regional FLL Qualifying tournament. Due to our previous experience with FLL, we want to give back to FLL in return for all the great memories and experiences it has given us. Many Highlanders have refereed at numerous FLL tournaments, and a few have gone even further this past year by mentoring three FLL teams and three FTC teams. One of our members even served as the volunteer coordinator for the Liberty Qualifier! But the truth is that every Highlander has given back to FLL—a fact which tournament officials have recognized by awarding our entire team the Outstanding Volunteer Award. We continue to involve ourselves by acting as “judges” for an FLL team's research project presentation practice and offering advice to another local Worlds-bound FLL team. The Highlanders have also opened our shop facilities to the different levels of FIRST, even teaching a local FTC team how to fabricate basic parts, which ultimately allowed them to construct their practice field.

Yet the Highlanders' outreach isn't limited to FIRST, as we are passionate about bettering the communities we've grown up in. We have put together McKinney Backpacks (packs of food) to give to the kids of the community whose families are struggling to make ends meet. Hopefully, our contribution will help them through the unpredictable Colorado winters. The Highlanders also took action after rain and massive flooding caused unprecedented damage in many cities across Northern Colorado. Every

Highlander knew someone affected by this natural disaster, so we did what we could to help, collecting and delivering food to those displaced from their homes. On a happier note, our team volunteers at an annual children's triathlon. We love cheering the kids on and seeing their exhausted, but ecstatic faces as they cross the finish line! FIRST has become an incredibly personal vehicle of inspiration—a passion for giving back to our community is now a part of each and every Highlander.

Team History

Although this is only our second year as an FRC team, most of our team members and coaches have had the *Cycle of Success* ingrained into their very being for the last five years. Initially, our teams were Northern Colorado rivals; both teams had been heavily involved in FLL and both teams simultaneously advanced to FTC. We combined the two teams for FRC to create The Highlanders. After barely communicating for the first couple weeks of the season last year, our two teams got over their rivalries and finally meshed. Merging teams turned out to be the best decision we could have ever made. We worked to the best of our combined ability, and trust us, everything we did together was remarkably better than anything we did apart—and our efforts culminated in an incredible rookie year. That whirlwind of a season led us to qualify for the World Festival through the Rookie All-Star Awards at the Colorado Regional Qualifier and the Hub City Regional Qualifier. Worlds was surreal, and the knowledge and talent we saw there was downright impressive. Worlds showed us that we had to step up our game. We started this Aerial Assist season miles ahead of last year. Summer workshops for the CNC and shop tools got everyone up to speed with fabrication methods and safety, a revised team leadership structure made everyone's roles clear, and a preliminary season schedule gave us deadlines to stick to. Organization and forethought have proven to be the most important additions to the Highlanders, and we are using everything we learned at the World Festival to drive our improvements. Our *Cycle of Success* is reaching new heights, and we are well on our way to future excitement, challenges, and involvement.

Future

Our *Cycle* is our future. After our members graduate and go on to pursue their own futures, they are expected to return to our team and mentor future generations of Highlanders. They will provide the knowledge and expertise accumulated during their time at college and throughout their careers. As every FIRST team has learned; business, communication, and administration skills are absolutely vital to a functioning, sane FRC season, so we are confident that graduates with any background can contribute. But our future does not end with the Highlanders. Our community-based non-profit, Neaera Robotics Inc, was founded to promote all levels of FIRST in Northern Colorado. The Highlanders FRC team is the first of many, as it is our goal to found and sponsor FLL, FTC, and FRC teams to continue to spread the gospel of FIRST. We strive to unite more developing young minds under the flags of STEM, leadership, and gracious professionalism. Neaera Robotics will become an asset to all FIRST teams in the area—ambitions of an open shop, a parts recycling center, and a series of machining tutorials will benefit every Colorado FRC team. Practice facilities for every level of FIRST will give teams unprecedented scrimmage opportunities, while also allowing the younger and newer member of Neaera Robotics to see what their future in FIRST can hold. FIRST has played an integral role in the Highlanders' own developments, igniting and shaping our minds, our ambitions, and our dreams. Our futures are already set to provide this same sort of inspiration to the future generations of Neaera Robotics Inc.

Conclusion

The Highlanders continue to seek our own definition of success. While our robot is often (and rightfully so) the center of our team's attention, each Highlander always gravitates back towards our four central tenets. Our *Cycle of Success* reminds us of our mission—to be part of something greater than ourselves. Our inclination to serve our community consistently takes a pivotal role in our development. Our history lets us see how far we have come, and this progress assures us that we are on the right track, that we are building on our failures and mistakes, and that these challenges are what make us who we are. The Highlanders' success isn't something we measure in awards or trophies. It's something we measure in our impact, in our members, and in our memories.