



Chairman's Executive Summaries

Executive Summary Question 1

Describe the impact of the FIRST program on team participants with special emphasis on the current season and the preseason 2-5 years.

FIRST has inspired each Highlander to reach their maximum potential in all endeavors. Highlanders use the knowledge gained from FIRST experiences in school, college, and job opportunities. These experiences have sparked a passion for STEM; motivating 94% of Highlander alumni to pursue STEM and 100% are college-bound. Highlanders complete their *Cycle of Success* by returning to mentor future members with over 70% coming back to assist FIRST teams and over 40% becoming registered mentors.

Executive Summary Question 2

Describe the impact of the FIRST program on your community with special emphasis on the current season and the preceding two to five years.

The FIRST program is always growing in our community, and we put a special emphasis on the young. We host FLL rookie boosters to make sure kids jumping into FIRST get the help they need. Running summer camps over the years has allowed us to reach out to schools and their students as they experience Lego Robotics first hand. Showing off our robots through the community in parades, halftime shows, and boy scout troops allows us to get the seed of FIRST planted in the hearts of maturing kids.

Executive Summary Question 3

Describe the team's innovative or creative method to spread the FIRST message

The Highlanders have their minds set on defeating robotics stereotypes. We reach out to impoverished organizations, female communities, and the jock crowds. Underprivileged organizations readily welcome our interactive presentations, halftime crowds are intrigued by our robot demos, and female communities have experienced many of our recruitment nights. Children's books, parade demos, fair expos, and toy drives all allow us to reach out to our community in areas not conducive to robotics.

Executive Summary Question 4

Describe examples of how your team members act as role models and inspire other FIRST team members to emulate

The Highlanders understand the power of servitude and character to inspire. During a stressful tournament, our programmers assisted a team with failing code, getting them back on their feet. In our off season our build captain hosted a carbon fiber night for any ambitious teams. Two years ago we funded a rookie team that couldn't afford to go to worlds. Our hope is to start a

trend of aiding others that future teams will pass on. For the Highlanders, there is always another opportunity to serve.

Executive Summary Question 5

Describe the team's initiative to help start or form other FRC teams

Each year is a step towards progress. In our rookie year, we joined with another FRC team to mutually assist each other. In consecutive years, we partnered with an old friend to further the mission of FIRST. Starting in South Dakota, and following into Wyoming, we helped start two new FRC teams. These teams will be members of Neaera Robotics, one of the only Colorado non-profits created to promote FIRST and STEM. As we gain traction, the Highlanders hope to broaden the impact of FRC.

Executive Summary Question 6

Describe the team's initiatives to help start or form other FIRST teams (including Jr. FLL, FLL, & FTC)

While the Highlanders have always had a focus on the younger kids in our community, our team pledged to assist with a purpose: shifting focus to underprivileged students. The past two years we have started multiple teams at a local boys and girls clubs across our county. We join them twice a week to teach the engineering design process, as they walk through building a robot. We presented the opportunity to start an FTC team with another organization, and have plans to follow through next season.

Executive Summary Question 7

Describe the team's initiatives on assisting other FIRST teams (including Jr. FLL, FLL, FTC & FRC) with progressing through the FIRST program.

The Highlanders across our community are known as the “door” to FIRST, as we’re always free to offer our own time. Through our efforts to make our shop 100% open to the public, multiple FIRST teams benefited from using our machines and unique capabilities like carbon fiber and 3D printing. We take our service minded hearts internationally too. In our rookie year, we helped a German FTC team solidify their infrastructure. Sending the word of FIRST across the oceans is a growing goal for us.

Executive Summary Question 8

Describe how your team works with other FIRST teams to serve as mentors to younger or less experienced FIRST teams (includes Jr. FLL, FLL, FTC & FRC teams)

Our members continuously mentor junior teams. Two members mentored FLL teams, resulting in “mentor of the year” awards for each. In both of these member stories, they had a younger sibling on the FLL team who saw what sacrifice and service looks like, inspiring them to higher things. Many members have taken on the challenge of mentoring their school FTC teams too. As a team, we mentored our first fellow FRC team, bringing an all-girls FRC team under our wing for their rookie year.

Executive Summary Question 9

Describe your Corporate/University sponsors

We have strong ties with our diverse sponsors because they know that our team is dedicated to achieving excellence. Nationally, we have received grants from NASA, PTC, and Lockheed Martin. Ottercares, another sponsor, is a local foundation created by Otterbox that supports youth programs in our county and we've been fortunate to be sponsored by them for three years. Trihydro, an environmental engineering company located in WY, has donated 25 laptops and a high-end Alienware graphics workstation.

Executive Summary Question 10

Describe the strength of your partnership with your sponsors with special emphasis on the current year and the preceding two to five years

Our sponsors are incredible, and for years they've continued to support our endeavours. Employees from Fleetwood Goldco graciously come to our shop and mentor us on various engineering practices such as rapid prototyping and the design process. PTC, along with being a financial sponsor, hosted our team for training on CREO and Windchill. Likewise, we do our best to show our appreciation with demos and facility tours.. Our sponsors are more than just money; they are a partnership.

Executive Summary Question 11

Describe how your team would explain what FIRST is to someone who has never heard of it

FIRST stands for "*For Inspiration and Recognition of Science and Technology*". It creates opportunities to work with local business leaders in the community, to have competition with other FIRST teams, and improve skills in engineering, leadership, and teamwork. It provides real world experience that can't be found anywhere else. Besides the obvious technical aspect, FIRST is an opportunity to make friends that become family, and allows us to practice gracious professionalism in engineering.

Executive Summary Question 12

Briefly describe other matters of interest to the FIRST Judges, if any

Losing over half of our team in one year was an incredible hit on our morale and vision for our future, since many aspects of our team were left to uncertainty. Taking this in stride, we were determined to do even more. Demos, presentations, and shop visits across school campuses resulted in 15 new members all fired up for a world in engineering. This new team dynamic resulted in an entirely different system of teaching and learning that will impact our sustainability for years to come.