



2014 Chairman's Executive Summary and Essay

Executive Summary:

Impact on Team Members:

- >Consistent annual growth rate of 25%.
- >100% of alumni are attending college; 90% are pursuing STEM related majors
- >(1) Dean's List Finalist and (2) FIRST scholarship recipients.
- >One alumnus awarded a FIRST internship at Space X.
- >Strong leadership and communication skills built through student-led team structure.
- >Students are introduced to local business and community leaders.
- >Students gain confidence to leave their comfort zones and pursue new challenges.

Impact on Community:

- >Promote the FIRST mission at many clubs, civic and local events.
- >Organized "Take A Byte Out Of Hunger" attracting 100+ FRC volunteers.
- >The team participates in Operation Christmas Child and "Wreaths Across America."
- >Led a week long App Camp for 25 students.
- >Volunteered at 10 FLL events.
- >Started a program to help disabled veterans in partnership with Wounded Warriors Family Support. We are seeking FRC teams across the country to join us in this effort.

Innovative Methods to Spread FIRST:

- >YouTube channel has reached an international audience with over 22,400 views.
- >Alumnus created a video detailing our first week of build season hoping to excite others about FIRST.
- >Strong presence online through social media channels and award winning website.
- >Featured in 6 newspapers.
- >Letter-writing campaign to 16 elected officials.
- >K-LOVE and Air1 radio stations promoted Up Next and FIRST nationally.
- >Team's Hero Project featured on KCTV5.
- >Closely partnered with YopYip, a new FRC forum.

Role Model Characteristics:

- >Commitment to diligence & excellence.
- >Close-knit team exemplifying Gracious Professionalism.
- >Full-time participation of all members.
- >Student-driven approach emphasizing leadership qualities.
- >Go-to team for Java programming.
- >Second year as a Java beta test team.
- >We have amazing multi-generational support. Our families are heavily involved and attend our events.
- >Created "Next Up" a program that ensures every rookie is fully trained through a series of technical and safety workshops.

Starting FRC Teams:

Founder Craig Fritts started Team 2474 Excel in Michigan before moving to Missouri. As a four year old team, our goal to make Up Next stable and sustainable has been accomplished. We now plan to expand and develop other teams. We particularly wish to start teams to include more members of the homeschooling community and bring their creativity and unique viewpoint to the FIRST arena.

Starting Other Teams:

In 2009, Up NeXT started as an FLL team. In 2010, we added an FRC team. Because of the impact FIRST had on our FLL members, many of them have joined our FRC team. To share our great experiences from FLL with others, we have already recruited members for a new FLL team next year. In addition, our team has assisted in the formation of another FLL team which is registering for next season.

Assist Other Teams:

- >We show Gracious Professionalism by helping teams during build and competition seasons.
- >Helped a team build their robot from scratch at the Arkansas Regional.
- >Often loan tools and parts to other teams.
- >Created "Will Code for Food", offering programming instruction to 10 FRC teams.
- >Co-hosted KC QuickBuild for 3 years; helping rookie teams build a basic working robot by the end of Kickoff day.
- >Reprogrammed Team 1764's robot during competition.
- >Loaned a control board to rookie Team 5013.

Mentor Other Teams:

- >Gave seminars to FTC mentors and students about the importance of community outreach.
- >Led a session to over 80 FLL coaches on how to coach in ways that manifest successful learning experiences.
- >Mentored FLL team UP NeXT our rookie year 2010-2011
- >Mentored Team 3937 Breakaway and homeschooled Team 4849 Rock City through email and supported them at their rookie competition.

Corporate/University Sponsors:

- >Metropolitan Community College is our home base of operation.
- >Received corporate grants from Best Buy, Staples, IBM, KC STEM, and Bank of America.
- >Local business sponsors include Imaging for Women, Hunts Car Care Center, Kearney Trust Company, and Platte Clay Electric.
- >Laird Plastics has been extremely generous in donating scrap plastic.
- >Community organizations such as Knights of Columbus- Ladies Auxiliary 8915.

Strength of Partnership:

- >Up Next Leadership Foundation was created to generate STEM resources for an underrepresented population- the homeschool community.
- >Metropolitan Community College generously provides classrooms and the use of their fabrication lab. In appreciation, we participate in events at the college such as leading the 2011 graduation ceremony with our robot.
- >We connect with sponsors via quarterly newsletters, participating in their events and hosting an annual appreciation dinner.

Explain FIRST:

Our team explains FIRST as the "varsity sport of the mind." FIRST gives students the opportunity to experience science and technology in a hands-on competitive environment. They have made it their mission to ignite a passion for engineering in young minds to prepare them for a future where science is celebrated. FIRST teaches students how to build a robot, but more importantly it teaches them how to build a team. FIRST robotics is what our parents never had but wished they did.

Other Considerations:

Up Next makes a significant impact on the homeschool community. Because of a lack of infrastructure, expertise and funding, most homeschooled students are unable to experience STEM in a competitive atmosphere. To give our students the opportunity to apply STEM to the real world in a tangible way, we initiated The Hero Project - a program designed to identify and meet specific mechanical needs of disabled veterans around the country. We have invited 70 FRC teams across the nation to join us.

Chairman's Essay:

We are Up Next, Team 3528, a four-year-old homeschool team from Kansas City, Missouri, the "Show Me State." The nickname was popularized in a speech made by Congressman Willard Vandiver in 1899 who said, "... frothy eloquence neither convinces nor satisfies me. I'm from Missouri, and you have got to show me." Up Next embraces this idea and works hard to show students, our community, and the world what *FIRST* means to us.

We recognize our invaluable partnership with Metropolitan Community College (MCC) and are thankful that they share our passion for excellence. MCC donates two classrooms for us to use and allows our team access to their FAB-Lab. The college also partners with us in promoting *FIRST* in their newsletters and honored our team by asking us to lead a graduation ceremony with our robot. As an indicator of the college's involvement with *FIRST*, they have been selected as the new venue for the FRC Kansas City Regional.

Through the Up Next Leadership Foundation, we provide STEM education resources and leadership opportunities primarily for the benefit of the fastest growing form of education - the homeschool community. In addition, we have a strong commitment to promoting *FIRST*, resulting in a consistent annual growth rate of 25%. Each team member is required to put in a minimum of 35 hours each week during build season. This develops each student into a dedicated, hard-working, full-time participant. To provide smooth transitions onto the team each year, we created "Next Up," a program that ensures every rookie is fully trained through a series of technical and safety workshops.

The long-term benefits for our students are apparent. After graduating and moving on to college, our alumni are still making great contributions to our society. For example, Jordan Ousley, currently a film studies major, created a mini-documentary covering our first week of build season, hoping to inspire others to get excited about *FIRST*. Two other graduates, David Andrews and Logan Fritts (a Dean's List Finalist and *FIRST* scholarship recipient), created an entirely new social networking site specifically catering to the *FIRST* community. This website, YopYip, is designed to make it easy for teams to connect and exchange ideas. Last year, Titus Woo, another alumnus, was one of only fifteen students in the country selected for a *FIRST* internship at Space X. Our alumni not only impact society but often return to Up Next as mentors to share their skills with new members.

We realize the importance of connecting with our elected officials to show them how vital *FIRST* and STEM are to the future of Missouri students. State Representative TJ Berry had never

considered how life-changing *FIRST* robotics could be until he attended our annual Appreciation Dinner and the FRC Kansas City Regional. Afterwards, he expressed his new understanding of how impactful science and technology are in our culture. This year, Up Next reached out to sixteen of our state and local representatives through a letter-writing campaign. Our goal is for them to share our excitement and partner with us in furthering STEM education.

To promote the mission of *FIRST*, we employ innovative methods throughout our local and national communities. Our efforts have been featured in six newspapers, and we have reached an international audience through YouTube, Facebook, Twitter, and our award-winning website. We constantly build and sustain relationships with our students, mentors, supporters, and community through social media. In addition, Up Next has established a unique relationship with two radio stations, K-Love and Air1, which have broadcast interviews of team members and promoted *FIRST* nationwide. Just before Veteran's Day, our Hero Project caught the attention of KCTV5 News. They ran multiple segments showing the project during their newscast and featured us on their website.

Up Next believes in the importance of giving back to our community. As a result, we have participated in over twenty-five outreach events through the course of our four year existence. One program we established is called "Take A Byte Out of Hunger." For this annual event, we recruit local FRC teams to join us in sorting and packaging thousands of pounds of food for Harvesters, a Kansas City food bank. Operation Christmas Child, another event we love participating in each year, involves assembling and loading shoe boxes to be delivered to impoverished children around the world. We showed honor to the countless men and women, who have made the ultimate sacrifice for our country, by participating in "Wreaths Across America."

To generate interest within the community, our team attends many local events including the Liberty Fall Festival, Trunk'r Treat, a homeschool curriculum fair, and Civil Air Patrol meetings. At the Kansas City Maker Faire, a festival of invention and creativity, we show the spirit of *FIRST* by holding friendly competitions with other FRC teams. During these events, we reach thousands of individuals, fostering excitement in the young and old alike by allowing them to drive our our robot.

Students interested in mobile app development had the opportunity to experience hands-on learning when we held our first Android App Camp last summer. In partnership with Cerner Corporation, we were able to show twenty-five 7th-12th graders how to create apps ranging from fun games, to a useful car maintenance app. Students worked in teams, and as individuals, to learn the basics of application development before constructing their own personal apps. We enjoyed working with the students and plan to expand our summer programs this coming year to include an FLL camp that will reach younger minds.

Up Next enjoys serving our local community but also takes pride in showing support to the *FIRST* community through the active mentoring and assisting of other teams. Since we were founded as a *FIRST* Lego League Team, there is a special place in our hearts for FLL. This passion led us to offer a workshop for over 80 FLL coaches, communicating strategies on how to manifest successful learning experiences. Furthermore, our team has assisted at ten FLL tournaments, serving as judges, timers and referees as well as building field models. This season, Up Next expanded our efforts by working with *FIRST* Tech Challenge teams. We built and assembled three fields for the 2013 Kansas

City FTC kickoff and guided mentors and students to recognize the importance of community outreach.

From FLL to FRC, we seek to show Gracious Professionalism in all we do. For example, we lent rookie Team 5013 a control board so they could compete in Cow Town Throwdown, an off-season event. At the 2013 Razorback Regional, several teams needed help passing inspection. We rolled up our sleeves and dove right in. Not only have we helped rookie teams, but veterans as well. During a competition we reprogrammed Team 1764's robot from LabVIEW to Java so that they could compete.

A tremendous growth in FRC teams in our region has led to a great need for mentoring. As the go-to team in KC when it comes to programming, we organized an event known as "Will Code for Food," which provided valuable programming instruction for ten FRC teams. To prepare rookie teams for their build season, we have co-hosted the Kansas City Quickbuild for the last three years. At this event we help them build and program a basic robot.

While we recognize the importance of mentoring other *FIRST* Teams, one of the greatest ways to cultivate a team's skills and talents is by developing solutions for real world problems. In the fall of 2012, our team decided that we wanted to make a difference in people's lives. Around that time, one of our mentors met Ron Gulick, a quadriplegic. Ron had just received a service dog but was unable to leash and unleash it. Up Next developed a device that allows Mr. Gulick to accomplish this task. In addition, this system enables Mr. Gulick to feed himself, something he had been unable to do for eight years. After this wonderful experience, our team wanted to do more to help the disabled. This gave birth to "The Hero Project", a program designed to identify and meet specific mechanical needs of wounded and disabled veterans across the country.

Currently, our team is helping Mr. John Weinburg, a veteran who suffered a severe spinal injury during a training exercise which left him a quadriplegic. Although his home is in Omaha, Nebraska, a three-hour drive from Kansas City, we were compelled to help him when we found out that there are no existing FRC teams in his state. Mr. Weinburg's request is for a tool that will allow him to retrieve items he drops. In response, we have prototyped and are continuing to work toward a final production of a gripping device that is activated by a slight turn of his wrist.

With help from Disabled American Veterans and Wounded Warriors Family Support, we continue to identify wounded veterans and are seeking other FRC teams across the nation to join in this effort. To date, we have extended an invitation to over seventy FRC teams. They will be matched with disabled veterans in their area giving *FIRST* members an opportunity to use STEM in real-world applications.

In conclusion, Up Next is not about a list of achievements. Our goals encompass much more than just building a robot. We inspire students to become creative, intelligent, hardworking members of society. Through serving our community, volunteering at local charities, and aiding those in need, we show that young people can impact the world. By partnering with local news outlets and politicians, we use their voices to amplify our own. We choose to be the innovators of tomorrow that change society for the better; the ones that make a difference. We strive to be those people because we, as a generation, are Up Next.