



The Ponytail Posse

FTC #8808 - 2015/2016

www.theponytailposse.com



About Us!

Hello! We are the Ponytail Posse, an all-girls FIRST robotics team. This is our second year in FIRST Tech Challenge (FTC). We have also completed five years of FIRST Lego League (FLL). This business plan is to explain what we've done in the past as well as our accomplishments and goals for this season of FTC.

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Team history: Our journey began in 2009 when we participated in the FLL Smart Moves season. Every year, we advanced to the MN FLL State Championship (where we most commonly placed third). During our last year of FLL, we were chosen to participate in the FLL National Championship in Carlsbad, California.

Our first season of FTC was 2014 "Cascade Effect". During this season, we won two Connect Awards (given to the team with the most accomplished outreach) and a Promote Award (for a FIRST public service announcement video which we made). We also advanced to the State Championship and had a lot of fun competing among the best teams in Minnesota.



Contact information:

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About FIRST:



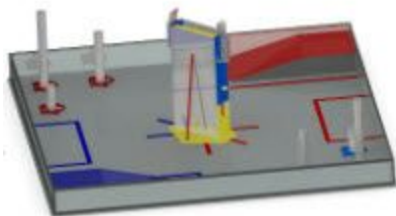
FIRST stands for “**For Inspiration and Recognition of Science and Technology**”. It is an organization that **encourages youth to explore engineering principles** through working as a team to build a brand, community, and technical skills. Junior FLL, FIRST Lego League (FLL), FIRST Tech Challenge (FTC), and FIRST Robotics Competition (FRC) are all programs within FIRST. Junior FLL is the pre-program for students interested in FLL for kindergarteners to 2nd graders. FLL is a robotics program for 4th-8th graders, while FTC and FRC are robotics programs for high schoolers.

About FLL:



FLL is also a worldwide competitive robotics competition. The participants, **ages 4th grade and up, use LEGO’s NXT Mindstorms to build and program a robot**. This robot must be able to complete missions autonomously on 4' by 8' boards. The students use a visual-based programming software to program these robots. There is also a **research portion of FLL** - the teams must find a creative problem and solution within that year’s theme.

About FTC:



FTC is an worldwide robotics competition. Teams of 10 or less are responsible for **designing, building, and programming an 18” by 18” by 18” robot to compete in a challenge** that changes every year. The robot is made from materials like metal, 3d printed plastic parts, wires, and motors. They then use their robot to complete tasks on a 12’ by 12’ playing field (pictured left). For example, last season’s challenge was called ‘Cascade Effect’ and involved collecting balls and putting them into tubes up to three times the initial height of the robot. **Each team is judged on their robot design and strategy (documented in an engineering notebook), activeness in community outreach (mainly volunteering and mentoring), and real-world accomplishments.**

You can find more information about the programs on this page, as well as Jr. FLL and FRC, at www.usfirst.org.



Goals

ROBOT: one of our goals throughout the season is to expand our knowledge of robotics design and technical engineering. We will also have a detailed documentation of our robot-building process throughout the season in an engineering notebook.

This season, we would like to:

- learn how to use new sensors and methods to use while building autonomous programs
- learn the new programming code, Java, and experiment with the new Android field control system
- effectively document our engineering and design process in the engineering notebook
- find new and innovative ways of thinking to solve the field's challenges

SOCIAL MEDIA & MARKETING: this season, we are going to continue our online activity, showing our progress to those who are interested and connecting with teams around the world. We will also continue expanding the FIRST community to those who possibly haven't heard of it before.

This season, we want to:

- continue mentoring FLL teams throughout their season
- continue volunteering at FLL tournaments, while also possibly expanding our volunteering to FTC and FRC
- contact new sponsors to help promote FIRST and help with the season's finances
- update our website to include resources for FLL and FTC teams, including an FLL FAQ page and general advice for new teams





Events for the 2015-16 Season

Corporate Demos: As part of our outreach, we like to demo at local companies, many of which are our sponsors. At these demos, we introduce FIRST and talked about our robot. We also recruit volunteers for tournaments, resulting in more support of FIRST in general. If your organization is interested in a demo, please let us know!



Community Demos: Another way we spread the word about FIRST is community demos for the general public. FIRST is something that we're very passionate in talking about, so it's a lot of fun introducing it to



people who are interested. The kids get a rundown on FLL and then drive our robot while we go more in-depth with their parents. Through these demos, we've learned a lot about public speaking and how to engage adults in conversation about FIRST. In the past, we've demoed at places like Jr. FLL showcases, libraries, and elementary schools. This year, we'll expand to events like teen tech camps and the Minnesota State Fair.



FLL Mentoring: We love talking to FLL teams! One of our favorite things to do is pass on what we've learned to teams with less experience. This could be visiting their regular meetings, volunteering at a public training session, or simply just answering an email. There are many teams we know who are competing this year and we look forward to seeing them throughout the coming season.



Tournament Volunteering: To us, volunteering at tournaments is just as fun as participating in them! Last season alone, we put over 130 man-hours into volunteering for FLL. This year, we hope to meet or pass that amount, as well as expanding our volunteering opportunities to FTC and maybe even FRC.



MN FTC Qualifiers: At the regional FTC tournaments we attend, we would mainly like to meet teams and work well together with our alliance partners. This means approaching others and introducing ourselves, which we didn't do as effectively last year because we were so focused on learning how everything worked. We would also like improve our presentation skills not only for our judged team interview, but so we are able to convey ideas and strategies to our alliance partners throughout the day.

MN FTC State Tournament: Last year, we achieved a middle ranking at the Minnesota state tournament (which we were very satisfied with, since we were a first-year team). After seeing the teams that were there, we are now motivated to do even better than last year. We would like to end the 2015-2016 season with an upper ranking and/or an award to represent our hard work throughout the year.

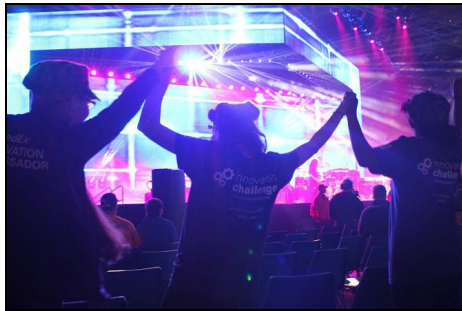
FTC North Super Regionals: The last level of competition before the FIRST World Festival is the Super Regionals in Des Moines, Iowa. Every year, the top teams from the Minnesota State Tournament qualify to compete there. Even if we don't advance, we would like to volunteer at the tournament and cheer on the teams we know.





Events for the 2015 Offseason

Twitter Chat: We, along with another team, were invited by the managers of the FIRST Lego League Twitter account (@firstlegoleague) to co-host a Twitter Q&A session. During the hour, any FLL team could ask a question and get an immediate response from an experienced team. The entire conversation is stored on storify.com so it can be accessed by teams at any time. The goal of the chat was to answer any questions teams might have, along with letting them meet other teams online. **April 15, 2015**



Trip to FIRST World Festival: In March, we made videos and took creative photos as our entries in a contest hosted by FedEx. We won the contest and received a free trip to the FIRST World Festival in St. Louis, Missouri as VIPs. The four days in St. Louis were packed with adventures like flying planes at Parks College flight school, touring a Boeing plant, and meeting influential people like the founder of Twitter

and president of LEGO. We also enjoyed our time with other FIRST teams and the FedEx executives who had run the original contest. The trip was a life-changing experience for all of us and we are so thankful for this incredible opportunity! **April 22-26, 2015**

TCMaker Minne Faire: TCMaker, who is one of our sponsors, hosts an annual “Minne Faire” where members who use their tool shop can showcase their creations. This year, we joined in with our own booth. We spent the two days explaining FIRST to those who were interested and letting the kids drive the robot. It was a lot of fun talking about robotics and meeting people who had used TCMaker to create their own businesses and innovations. **May 23-24, 2015**





Ramsey County Libraries Summer Reading Kickoff: We were invited by our local library to do a demo at their annual summer reading program kickoff. The event had many different activities such as 3D designing, arts & craft projects, and even a glitter tattoo table. We joined in the fun with our robot and set up our own display. While the line to drive our robot grew, we engaged the parents in conversation about how their children could be involved with robotics. They seemed very interested and it was exciting to see how many of them were enthusiastic about FIRST. **June 6, 2015**



Teen Tech Camp: Among the many activities our local library hosts during summer, they hold a “tech camp” for teens. The week long day camp will include topics like 3D printing, digital art, and video game creation. On one of these days, we will be doing a session about FTC and will demo our robot. **June 26 & August 4, 2015**

FTC / FLL info nights: During community demos, we’ve noticed that there are a lot of parents whose kids would be interested in robotics, but haven’t heard of FIRST. To help spread the word and promote FIRST locally, we plan to host two info nights (one for FTC and one for FLL). At these sessions, we’ll cover the basics of FIRST and how to join or start a robotics team. **September 1 & 3, 2015**

Girl Time: In September, a local interactive museum called The Works is hosting an event called “Girl Time”. The purpose of this event is to encourage young girls to explore science and engineering. We were invited to demo our robot and speak to the attendees about FTC and FIRST. **September 26, 2015**





The 2014–2015 season

During last season, we had the opportunity to learn the ins and outs of mechanical and electrical engineering. This is mostly thanks to an organization called TCMaker; they are a workshop with a wide variety of tools, allowing us to do anything from woodworking to welding to using a laser cutter. At the beginning of the season, we gave a brief presentation at one of their board meetings and they generously gave us a year-long membership.



At TCmaker, we've learned how to use many complicated (and dangerous!) tools, including (but not limited to): a metal band saw, many drill presses, a lathe, different kinds of grinders, a welder, a laser cutter, and table saw. We really look forward to these visits to TCmaker because we get the chance to learn something new every time.



At our first tournament on November 22nd, we were honored to win the **Connect Award**. This is an award that a team can earn for being active on social media and community outreach. These are things we love to do and we were very excited to be recognized for it. Our second qualifier was on January 17th. We received **another Connect Award, the Promote Award (for a public service**

announcement video we made), and an invitation to compete at the state tournament. At the state championship, though we did not advance, we had an amazing time working and competing with the other teams. To be among the best robotics teams in Minnesota was an honor; we now have a better idea of what we can do to improve ourselves in the coming season.



2015-2016 Budget

Below are all of our expenses for the year. Some costs are estimated.















Category	Item	Cost
Registrations	FIRST Registration	\$275.00
	MN Qualifier fees (2)	\$300.00
	State Competition fee	\$275.00
	Super Regional fee	\$500.00
Materials	Laptop	\$500.00
	Laptop bag	\$100.00
Robot	Parts	\$3,000.00
FTC Challenge	FTC Field kit	\$700.00
	FTC Field border	\$650.00
Marketing	Business cards	\$100.00
	Custom 10x10 tent	\$400.00
	Trading Pins	\$750.00
Travel - FTC Super Regionals	Transportation	\$300.00
	Hotel	\$2,500.00
	Food	\$1,700.00
	Total	\$12,000.00



Sponsorship

We are very excited for this FTC season and would love for you to support us! Sponsorship of mentors, product, or financial support is greatly appreciated. Below, you will find benefits for each sponsorship level. Of course, any amount is helpful.

In-kind donations are also welcome and the value of the donation will qualify for the appropriate sponsorship level.

Benefits:	\$100	\$250	\$500	\$1000
A handwritten thank you letter				
Your name in the sidebar of our website				
Your name and company logo on our cart (used to transport robot at competitions)				
We come to your business and give a demonstration of our robot				
Your name and company logo on our robot				

If you would like to **become a sponsor**, checks can be made out to:

Ponytail Posse

877 Arbogast St.

Shoreview, MN 55126

Our team is a non-profit, but we are not a 501(c)(3) organization. If you need a 501(c)(3) in order to donate to us, please contact us and we will put you in touch with our fiscal agent.



If you have any other questions, you can email us at **team@theponytailposse.com** or visit our website at **www.theponytailposse.com**.

Thank you for your time and consideration!

The Ponytail Posse

Amy Helgeson

Meghan Froehle

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abn jr

Emily Elmquist

Nancy Kasch