

Coaches, Mentors, Team Members, Parents, Sponsors & Friends of FIRST:



HAPPY THANKSGIVING!

Where oh where has the time gone? Before you know it, **January 7th** will be here, the game will be released and the 2012 Season will be **OFFICIALLY UNDERWAY - 45 DAYS and COUNTING DOWN!** Thanks to the combined efforts of the folks from Bradley University College of Engineering and Technology, and Super Sponsor Caterpillar Inc., this year there will be a new Kickoff event in Illinois. The new Peoria Kickoff will be held in Bradley's recently completed Renaissance Coliseum located at 1600 W. Main Street, from 7:30 AM - 1:00 PM (CST). Chicago's Kickoff will be held at the Illinois Institute of Technology - Hermann Hall, 3241 South Federal St., from 8:30 AM - 4:00 PM (CST). For more details on the events, visit the Illinois FIRST FRC web site: http://www.ilfrc.org/index.php?option=com_content&view=article&id=13&Itemid=17.

Have you registered yet? If not, what are you waiting for? (*it closes 12/02!*) Register at: <https://my.usfirst.org/frc/tims/>.

***Also - as it gets closer to Kickoff, be sure to check and verify that information hasn't changed.*

WOW! More New FRC Teams!

#4143 - Metamora High School - Metamora, IL
 #4156 - Team Cyclones - Springfield, IL
 #4187 - Roborams - Mt. Vernon, IL
 #4196 - QAVTC Devils - Quincy, IL
 #4212 - Knox County FRC - Galesburg, IL
 #4213 - Green Bots - Bloomington, IL
 #4232 - AHS - Alton, IL

#4241 - Best - Joliet, IL
 #4246 - Resurrected Robotics - Troy, IL
 #4292 - Porter Bots - Lockport, IL
 #4296 - Blue Devil Builders - Gurnee, IL
 #4303 - Robo-aliens - Chicago, IL
 #4314 - SUL - Springfield, IL
 #4323 - HTA - Decatur, IL

Congratulations and Welcome to the Illinois FIRST Family!

Forty veteran teams and seventeen rookie teams are now registered in the State for a team total of 57 Illinois FIRST FRC teams. So rookies when you are feeling a little overwhelmed, confused or frustrated, know that there are plenty of teams out there who, if asked, will gladly lend a hand, offer advice and answer any questions that you might have.

In the Spirit of Coopertition and Gracious Professionalism

"...Coopertition is founded on the concept and a philosophy that teams can and should help and cooperate with each other even as they compete. Coopertition involves learning from teammates. It is teaching teammates. It is learning from mentors..."

"...Gracious Professionalism is part of the ethos of FIRST. It's a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community..."



FRC Team # 71 - Team Hammond welcomed rookie teams # 3936 - WWW.Michigan City, #4081 - East Chicago, and veteran team # 2171 - RoboDogs for "meet and greets" at their facility in order to get to know each other, and exchange ideas, information and advice.

FRC Team # 1739 - Chicago Knights recently hosted a build, program and strategy FTC workshop for all Chicago area rookie FTC teams. Much was learned and many friends were made.



and THERE WAS POPCORN TOO!

Not able to attend a training session or workshop? There aren't any in your area? Not to worry! Many members of our FIRST family have posted their presentations / seminars online. Why not spend some time during your Thanksgiving break to check them out? Below is a list to help get you started that both rookie and veteran team students, mentors and parents will find educational, useful and helpful:

from our friends at Indiana FIRST -

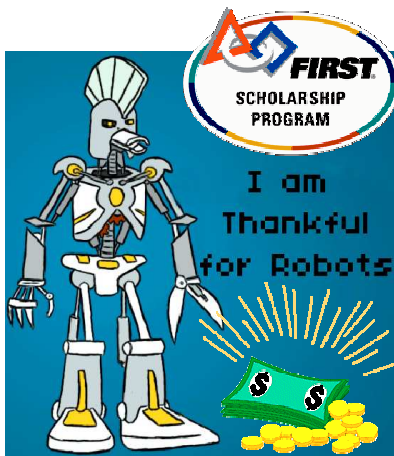
- "FIRST Match Strategy" (Andy Baker): <http://www.indianafirst.org/includes/download.cfm?downloadID=24>
- "Robot Appendage" (Andy Baker): <http://www.indianafirst.org/includes/download.cfm?downloadID=17>
- "Developing and Maintaining a Strong Sponsor Base" (FRC team # 234 - Cyber Blue):
<http://www.indianafirst.org/includes/download.cfm?downloadID=36>

from our friends at Maryland FIRST -

- "Web Site Awards, Judging & Tips" (Bill Duncan, Mike Dennis, Peter Harris):
http://www.mdfirst.org/images/stories/documents2011/Website_Award_Presentation.pdf
- "LabView 101" (Jayesh Jariwala):
http://www.mdfirst.org/images/stories/documents2011/2011_BAAFallEducation_LabVIEW101.pdf

from our friends at Minnesota FIRST -

- "Drive Train" (FRC team # 2169 - KING TeC)
 - "Rookie Pneumatics" (John Meyer, U of Minnesota)
 - "Veteran Pneumatics" (David Cook)
 - "Rookie Team Essentials" (FRC team # 2169 - KING TeC)
- * all are posted on the Minnesota Splash web site, <http://www.mnfirstregional.org/splash>



Super Scholarships!

Did you know that many colleges, universities, professional associations, and corporations offer college scholarships to students participating on FTC and FRC teams? For 2012, FIRST currently has over **140 Scholarship Providers**, with over **600 Individual Scholarship Opportunities**, totaling close to **14 Million Dollars!** So.....

What kinds of scholarships are available?

Most FIRST scholarships are merit-based scholarships and are renewable each year if you maintain an acceptable academic average. There are a few need-based scholarships. There are scholarships for a broad range of scholastic abilities. The majority (~60%) are for special majors such as engineering, math, science, computer science or technology. Others (~40%) are for any major you choose. Each scholarship is unique and has its own award amount, eligibility requirements, application requirements, and application deadline.

How do you apply for a FIRST Scholarship?

Go to the FIRST scholarship web page: <http://www.usfirst.org/about/scholarships/scholarship-opportunities>. Each FIRST Scholarship has its own unique application process, so be sure to carefully read the scholarship description ("More details" link on web page, if there is a "View application" link, be sure to follow that also).

Not a great student? Is there any chance you could win a scholarship?

Yes! You don't have to be an "A" student to qualify for every FIRST scholarship. Look carefully at the eligibility requirements. Some scholarship descriptions list minimum GPA, and/or test scores. Some schools will consider any student who has been admitted. Call the school directly if you have questions about whether you would qualify for their scholarship.

Thumbnails of some of the scholarships available in the Midwest:

- Bradley University, Peoria IL: Seniors. Engineering planned major - 4 available - \$2,500/yr. up to \$10,000.
- Illinois Inst. of Technology, Chicago, IL: Seniors. Any course of study - up to 25 available - up to \$6,000/yr. up to 4 or 5 years.
- University of Illinois, Chicago, IL: Seniors. Engineering - 5 available - \$1,000 non-renewable.
- Rose-Hulman Inst. of Technology, Terre Haute, IN: Seniors. Any course of study - 3 available - \$10,000/yr. up to \$40,000.
- Purdue University, West Lafayette, IN: Seniors. Computer Science - 4 available - \$250 non-renewable.
- Marquette University, Milwaukee, WI: Seniors. Engineering - 2 available - \$5,000/yr. up to \$20,000.
- Milwaukee School of Engineering, Milwaukee, WI: Seniors. Any course of study - 2 available - \$5000/yr. renewable; Also unlimited - \$1,000/yr. for other qualified applicants.

So during the holiday ... Enjoy the turkey ... Have a wonderful visit with family and friends ... And remember... **NOW** is the time for all good FTC & FRCers to start thinking, researching, discussing and planning for college applications and scholarships! Seniors - many scholarship app due dates are in March and April - you may need to write an essay and/or send a recommendation letter from a mentor - good idea to **DO THIS BEFORE BUILD SEASON!** Freshman, Sophomores, Juniors - it is never too early to start planning! Find a school that interests you, find out their requirements, visit the campus, make sure that you are taking the right courses now for admittance ... don't let these great FIRST scholarship opportunities pass you by!

Fantastic FTC!

Three Illinois Qualifying Tournaments were held during the past two weekends and what GREAT events they were!

The competitions were fierce, much fun was had by all, and many, many new friendships were formed. Special thanks goes out to all of the folks at Highland Park High School, Malcolm X College in Chicago, and Rotolo Middle School in Batavia for all of your hard work, volunteer time and great attitudes that made these events so successful, fun-filled, and special! Thanks also goes out to FRC Team # 2949 - Pwnage from Batavia who demonstrated their robot, answered questions and were truly gracious professionals and wonderful representatives of the *FIRST* FRC program.



CONGRATULATIONS!

Highland Park

Inspire Award

5072 - Wildcats, Lake Forest

Winning Alliance

5209 - BisonBot, Wood Dale

535 - TABOR, Crawfordsville, IN

Alliance Finalists

5972 - Wildcats, Lake Forest

5199 - Varsity Robotics, Barrington

Malcolm X

Inspire Award

4337 - Devry Daemons, Chicago

Winning Alliance

779 - Wildcat Robotics, Chicago

4337 - DeVry Daemons, Chicago

Alliance Finalists

116 - Crazy Eights, Chicago

5359 - Cohors Eruca, Chicago

Batavia

Inspire Award

3785 - Beastie Bots, Highland Park

Winning Alliance

5281 - E Team Innovators, Chicago

3537 - MECHA-Hamsters, Martinsville, IN

4442 - Thunderbots, Highland Park

Alliance Finalists

3785 - Beastie Bots, Highland Park

4507 - Robochargers, Grand Rapids, MI

2923 - Robo Warriors, Kankakee

For a complete list of the Awards and the teams advancing to State competition, visit the Illinois *FIRST* FTC web site: <http://www.ilftc.org/>

Important Dates & Info

• **Kinect Videos NOW Listed in FRC Beta Testing Forums!**

The FRC teams are Beta testing the new Kinect hardware and videos are being posted in the FRC Forums. Definitely worth watching! For forums, click here: <http://forums.usfirst.org/forumdisplay.php?f=1525>; videos example, click here: <http://youtu.be/cAdqpx8cs84>.

• **NOW POSTED! - Administrative Sections of FRC 2012 Manual!**

<http://www3.usfirst.org/roboticsprograms/frc/competition-manual-and-related-documents>

• **NOW OPEN** - Student Award Submission in STIMS and Mentor Award Submission in TIMS.

• **UL Announces New Safety Ambassador Program!**

Become a Safety Smart Ambassador and help UL teach children to manage themselves and their surroundings as safely as possible through the Safety Smart Program. Bill Nye the Science Guy will teach FIRST Robotics Competition (FRC) students how to educate, engage and empower young children to practice safe, healthy and environmentally responsible behavior. Bill will explain how to share reassuring, clear and confidence building messages, why the Safety Smart Ambassador program is important, where to find the materials, and how to conduct a Safety Smart event. For more information and to check out the tutorial, go to: <http://www3.usfirst.org/roboticsprograms/frc/safety-video-and-manual>.

• **12/02 Kickoff Registration Closes** — Kickoffs are **January 7, 2012** - Register at: <https://my.usfirst.org/frc/tims/>

Chicago Kickoff! — 8:30 AM - 4:00 PM (CST) at the Illinois Institute of Technology - Hermann Hall, 3241 South Federal St., Chicago. The Illinois Institute of Technology will host a 2012 FRC Kickoff Event in the Hermann Hall Union Building on campus. Refreshments will be available for teams before the NASA broadcast. After the broadcast and a short break for lunch, many exciting workshops and brainstorming sessions will be available for teams to take part in. A kit-bot build workshop will also be offered for any teams interested in learning the basics of robot building.

Peoria Kickoff! — 7:30 AM - 1:00 PM (CST). Hosted by the Bradley University College of Engineering and Technology and sponsored by Caterpillar Inc. The kick-off will be held in Bradley's new Renaissance Coliseum located at 1600 W. Main Street, Peoria, Illinois. Parking is available in the adjacent deck. Bradley will offer campus tours for any interested individuals either prior to the 9 AM session or following the kick-off. If interested in a tour, either e-mail Kathy Cobb at kcobb@bradley.edu or call at 309-677-2721.

**** NOTE** - As it gets closer to Kickoff, be sure to check and verify that the above information hasn't changed.

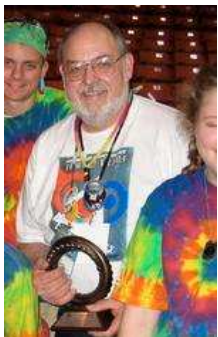
• **12/02 Bag & Tag exemption Requests Closes**

• **02/21** — Stop Build.

• **03/22-3/24** — Midwest Regional at UIC Pavilion, Chicago

• **Ask an Expert: Informational Calls for Team, Mentors and Coaches!** Hosted by FIRST Senior Mentors, these informational calls are for everyone! Also all of the prior training calls have been recorded and are available for listening. For FRC recorded calls, go to: <http://www.usfirst.org/roboticsprograms/frc/frc-senior-mentor-teleconference-recordings>

• **VIMS Registration is Now Open!** — Being a Volunteer at a Regional is not only a lot of fun, it's also a great way to meet terrific fellow FIRSTers! Sign up today at: https://my.usfirst.org/FIRSTPortal/Login/VIMS_Login.aspx.



Advice from Al . . .

By now everyone should have received notification that the Administrative Manual Section has opened on the FIRST web site. (<http://www.usfirst.org/roboticsprograms/frc/competition-manual-and-related-documents>)

In 2012, FIRST is changing the way robots will be transported to events. Instead of shipping the robot, teams will now seal their robot in bag and transport it themselves to the competition event. (See Section 5 - Robot Transportation for more information). Please note (if you missed it before), **ALL US and Canadian FRC Regional events are "Bag and Tag" except for Championship.**

Please have your "Robot Lockup Form" completed and available to present to Inspectors at every event when you arrive. There is special provisions for teams who require special shipping to events. This applies to most teams who cannot transport their robot overland to events. Please be sure to review those procedures ASAP. You will need an exemption granted by FIRST.

5.4 REQUESTING AN EXEMPTION. If bringing your robot yourself to the event presents you with a substantial hardship, you may request an exemption by emailing frc@usfirst.org. Include as much detail as you can in your request, and use the subject line: "Bag and Tag Exemption Request, Team XXXX", with your team number in place of 'XXXX'. Exemption requests will be handled on a case-by-case basis. Not every request will be granted. Exemptions must be requested by **December 02, 2012**.

Remember - READ THE MANUAL! ... over and over and over and over ... and over ... and over ... and one more time!

Happenings in Our FIRST Community

Contest Reflections

Submitted by Mary Kate Tadie,
FIRST FRC Team #2022 - Titan Robotics



December 3, 2011 - 2 p.m. until 4p.m.
Illinois Mathematics and Science Academy
1500 Sullivan Road - Aurora, IL
For more information or questions,
contact Jim Gerry at jgerry@imsa.edu

It is IMSA's mission to advance the human condition, and our Robotics team is doing just that. Our goal is to create a robotic arm that people with special needs can use to feed themselves. Dr. McLaren, the principle and vice president of our school, was diagnosed with ALS not long ago. Throughout the years, Dr. McLaren has always been an inspiration to his students, and now he has inspired us to try to make a difference. We have invited other school's Robotics teams to participate, as well, and on December 3, we will present all of our hard work in the hopes that our project will be able to help Dr. McLaren and others with similar afflictions.

At the moment, we are working on finalizing the design for our robotic arm. The arm will have rotating base that will allow the arm to swivel 360 degrees, an elbow joint that will move just like a normal human elbow, and a wrist joint that can move on two axes. Attached to the wrist of the robot, there will be both a clamp and a free-hanging ladle. For now, we are waiting for parts to create this robot, but once we really begin to build, our design may be altered to incorporate new ideas or better functionality. To control the robot, we are considering the use of a Kinect. We are hoping that we will be able to use this to detect the motions of the user to execute commands. Our control team has been working hard to program the system, but the Kinect has trouble recognizing small movements. It responds well to body movements, but it is the nature of ALS to hinder such movements, and we are concerned that the small eye movements of an ALS patient will not be enough. So, we came up with a back-up plan. We are also interested in working with the [Emotiv EPOC](#). The Emotiv device uses a set of sensors to tune into electric signals produced by the brain to detect the user's thoughts, feelings and expressions, and we would like to use these signals to control the arm. Right now, we are just waiting for it to arrive. We might not have the Emotiv EPOC by the competition date, but our work does not end on December 3. We also hope to connect with [Luis Cruz](#), a seventeen-year-old in Honduras who designed an eye-tracking interface for the disabled. He created a system that will detect the polarity in the eyes, and the measurements from this can be tracked by a computer. We are not sure what the timeline on this project will be, but we hope that we can utilize this method, and spread our goal to others. This is a project that means a lot to us, and we intend to finish it in the most effective way possible, whether or not there is a competition to use it in.



LEGO Qualifying Tournaments

December 3 - Urbana, Harvard and Streator

December 10 - Miles Davis Academy, UIC, Lake Zurich, Peoria, Rockford and Zion

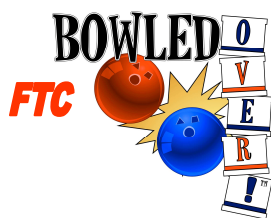
December 17 - Batavia, G.S. Friendship Center in Country Club Hills and Mt. Prospect

December 18 - Quest Academy in Palatine

The Illinois State Championship Tournament will be January 21, 2012

For More information, visit the Illinois FIRST LEGO League web site at:

http://www.ilfirst.org/index.php?option=com_content&view=article&id=9&Itemid=5.



Illinois FTC Championship - December 10, 2012

Illinois Institute of Technology - Hermann Hall - 3241 Federal Street - Chicago, IL

Admission is Free! - Doors open at 7:00 a.m. - Opening Ceremonies at 10:00 a.m.

For more information, visit the Illinois FIRST Tech Challenge web site: <http://www.iftc.org/>

Flapjack Challenge!

Submitted by: Karen Hill, FRC Team #1625 - Winnovation

**WINNOVATION
TEAM 1625**



This year's Flapjack Challenge will be Saturday December 3, 2011 beginning at 10 am on the Winnebago High School campus, 200 East McNair Road.

This event is designed as a friendly "mini" bot (less than 25 pounds) competition AND a great training opportunity to get everyone ready for the FIRST Kick-off in January. There is no registration fee. Winnovation expects to field three "mini" bots, with four or five area teams joining us for the day.

Friends and family are invited to watch the competition, enjoy some awesome pancakes (hence the "Flapjacks"), and start holiday shopping during our wonderful basket raffle.

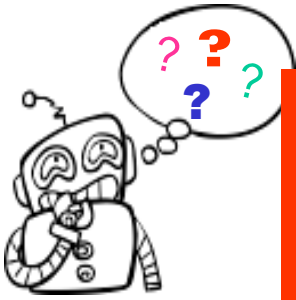
Rules for the competition are available for download here,

https://docs.google.com/viewer?a=v&pid=explorer&chrome=true&srcid=0B67_do0wB4ycNm1ZDE2MWYtNWYyNS00NmY2LTlkOTctY2ZiZjEYMWUwYzYy&hl=en_US. Plus our Animation Sub-team put together a game video to illustrate the action.

http://www.youtube.com/watch?v=ZQOJY6BB8Ww&feature=player_embedded



Still thinking about the team's Community Service Project for the Holidays? Can't decide? If you or your team haven't planned out your holiday helping others strategy, here is a chance to partner up with one of FIRST robotics newest and bigger supporters ...



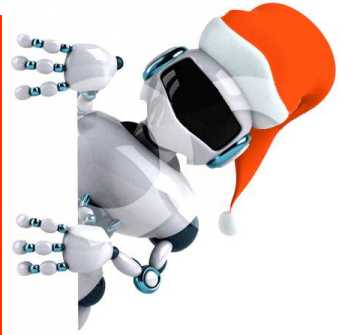
jcpenney has started a new giving program -
ANGEL GIVING TREE ONLINE
 PRESENTED BY **jcpenney**

Welcome!

WE'RE SO GLAD YOU'RE HERE.

The Salvation Army and jcpenney have joined forces to offer online angel adoptions.

Visit: <http://angel.jcpenney.com/angeltree/>



(From their web site) - We hope to reach more children, teens, and seniors in need than ever before with the help of generous hearts like yours! This year, you have the option of adopting an angel as an individual or as a group. Adopting angels as a group allows your company, church, civic club or online community to adopt more than 10 angels together. Just choose "find a group" to search for existing groups, or choose "create a group" before selection your angel(s). This way your angel adoption will count toward your group's adoption goal...

The Joy of Giving Has Never Been Easier! Thanks!

Midwest Regional March 22 - 24 Update!

To date, fifty-one teams have registered. Two of the 2011 Championship teams will be returning as well as one of the Finalists, plus nine Award Winning teams. All roads lead to Chicago for the MWR on March 22 - 24, with teams coming from Mexico City, Arkansas, Iowa, Kansas, Indiana as well as all over the State of Illinois! WOW - thirty-four veterans and seventeen rookies.

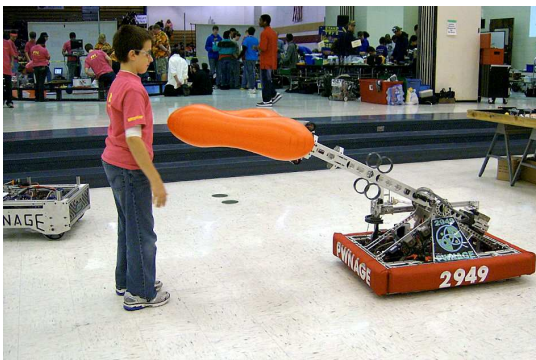
The Regional Planning Committee is busy with plans, meetings and discussions to ensure that the 2012 Midwest Regional is the best ever! As soon as things like the agenda, team social, hotels / lodging, merchandise, lunch orders and etc are finalized, they will be communicated to registered teams and also posted on the Midwest Regional web site:

http://www.ilfrc.org/index.php?option=com_content&view=article&id=6&Itemid=6. Look for an upcoming Special E-mail Blast with details about the **You design the 2012 Midwest Regional Poster contest** and other information.

In the meantime last year's information has been left on the web site in order to give you an idea of how things were done and to help you with this year's planning. Also if you have constructive ideas and/or comments for making MWR, the newsletter and the web site the best, we'd love to hear from you! Just send an email to ilfrc4c@gmail.com with your ideas and suggestions.

Community Outreach Events

Team # 2949 Demos at FTC Qualifying Tournament in Batavia - November 19, 2011



OOPS! - Last month the wrong link was given for viewing Team # 2949 Pwnage's being featured on TMA TV.
 The correct link, <http://www.youtube.com/watch?v=1imFtvaBW4A>

Don't forget to send your team's news, photos, community service / events recaps, videos, and whatever else you might like to share with your Illinois (and Northwest Indiana) FIRST community to ilfrc4u@gmail.com. Also, if you'd like the newsletter directly sent to you, drop us an e-mail with "Send Newsletter" in the subject line and the address.