



The 2004 Indiana Robotics Invitational Information Document

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I. Introduction

This document is written to describe the 2004 Indiana Robotics Invitational, otherwise known as the “IRI”. 2004 is the 5th year for the IRI and this year is expected to be the biggest and best ever. The goal of the organizing committee is to make the IRI the premier out of season FIRST robotics tournament.

II. History

The IRI began in 2000 and was originally developed by Team 45, the TechnoKats from Kokomo High School. By 2001, the IRI had outgrown the Kokomo facility and was too big to be managed by a single team. For the 2002 IRI, Team 234, Cyber Blue from Perry Meridian High School, and Team 393, Full Metal Jackets, from Morristown High School, joined forces with Team 45 and moved the IRI to its’ current location in Indianapolis.

For 2004, the IRI will expand to include 60 teams, several new awards and special program events. The tradition of the All Team Dinner on Friday night continues.

The sections below provide details on the event.

NOTE: The links and email addresses may not be active before May 14, 2004.

NOTE: Please direct questions to IRICoordinator@IndianaFIRST.org .

III. Hosts

A. Event Hosts

1. Team 45, TechnoKats, from Kokomo High School, Kokomo, IN
2. Team 234, Cyber Blue, from Perry Meridian High School, Indianapolis, IN
3. Team 393, Full Metal Jackets, from Morristown High School, Morristown, IN

B. Site Hosts

1. Team 1024, Kil-A-Bytes, from McKenzie Career Center, Lawrence, IN

IV. Location

A. The 2004 IRI is at Lawrence North High School

Lawrence North High School
7802 Hague Road
Indianapolis, IN 46256

V. Dates and Times

- A. Dates – The 2004 IRI is July 9 and 10.
- B. Times - July 9
 - Doors open at 7 AM
 - Opening Ceremonies 10:45 AM
 - Matches begin at 11 AM
 - Activities end at 9:30 PM
 - Doors close at 10:00 PM
- C. Times – July 10
 - Doors open at 7 AM
 - Opening Ceremonies 8:00 AM
 - Matches begin at 8:30 AM
 - Finals begin at 1:30 PM
 - Activities end at 4:00 PM
 - Doors close at 5:30 PM

VI. Entry Fees

- A. \$425 – Premier Pit Locations – Main Gym, Field Side (15 available)
Or \$350 – Standard Pit Locations – Auxiliary Gym (42 available)
- B. Filled Back-Pack for a 2nd Grade Student
Materials: Small Backpack, 1 pair scissors, 3 pocket folders, 1 box of 24 crayons, 3 glue sticks, 1 ruler with inches and centimeters, 1 package pencils, 2 large erasers, 2 black pens, 2 red pens, 2 packages loose leaf notebook paper, 1 school supply box, 1 package colored pencils, 1 package washable markers, 2 packages tissues, 3 spiral notebooks.

Rolls-Royce supports several education related activities in the local area. This includes FIRST Robotics and Project Lead the Way at the high school level, and several programs at the elementary school level. One special program is called "Pack to School". Employees donate materials for a backpack equipped for a second grade student. These backpacks are collected and provided to a local elementary school with a high percentage of students who need this type of assistance. In 2003, Team 234 participated in the program and provided five complete backpacks. For 2004, the team wanted to find a way to significantly increase support of this program, and asked that "Pack to School" be made a part of the IRI. If each team donates just one backpack, that will help 60 very eager and excited second graders get the school year off to a great start.

VII. Teams

- A. Entries will be limited to the first 57 teams (with 3 host teams = 60 total)
- B. All Indiana Teams and Returning 2003 IRI teams are guaranteed an entry in the 2004 IRI if they register on the first day.
- C. New participants will be on a first register / first in process
- D. A waiting list will be created after the field is full
- D. Teams not making payment by the required date will be moved from the registered listing and replaced with a wait listed team to assure a full field.

VIII. Registration

- A. Registration begins at 6 PM (Indiana Time) on May 14th.
- B. Registration ends at midnight, May 30th, or when the field is full, whichever is first.
- C. Registration will be through the IndianaFIRST web site (www.IndianaFIRST.org).
- D. Payment in full must be received by June 15th.
Make checks payable to “Perry Meridian High School – IRI”.
Checks must be in US Dollars
Credit cards are not accepted
- E. Mail payment to:
Indiana Robotics Invitational
Perry Meridian High School
C/o Steve Wherry
401 West Meridian School Road
Indianapolis, IN 46217
- E. An invoice will be emailed back to you after you register and are confirmed.
- F. Receipts will be provided at the IRI when you check-in.
- G. Information Required – the following information will be required to register –
Team name, Team number, Point of Contact, Point of Contact phone and email,
Number of students and adults attending, number of participants for the team dinner
on Friday night and breakfast on Saturday morning. We also ask that you provide
an indication of your intent to participate in the Animation competition, the
Chairman’s competition and the website competition.

IX. Volunteers

- A. Many volunteers will be required to make the IRI a successful event. A volunteer application form can be downloaded at www.IndianaFIRST.org. This form must be returned to volunteer@IndianaFIRST.org.

Please note that not everyone who volunteers will be needed. You will be contacted to advise of your selection as a volunteer.

X. The Game

- A. The IRI Challenge will be the 2004 “FIRST Frenzy” game.
- B. There will be an “Adults Only” round during the Qualifications.
- C. A “Yellow” and “Red” card system may be incorporated for violent play and intentionally damaging another robot. Details will be provided and explained on opening day.
- D. Noisemakers are required.
- E. Ear Plugs will be provided.

XI. The Robot

- A. Robots must meet the design and safety requirements of the 2004 “FIRST Frenzy”.
- B. Bring your Gracious Professionalism. There will be no weigh in or technical inspection.
- C. The Referees reserve the right to Dis-qualify any robot that operating outside of the First Frenzy rules and guidelines.

XII. Matches

- A. A limited number of practice times will be available and practice time is not guaranteed.
- B. Come ready to play!
- C. Eight (8) matches is the goal. The schedule will be developed for 8 matches per team, but this requires teams rapidly move on and off the field. Alliance selection and the finals will begin on time, so if there is not time for 8 matches for all teams, qualifications will be stopped after 7 rounds. It is up to the teams if we play 7 or 8 matches.
- D. Round 5 is planned as a “TURNABOUT” match. Drivers and Human players MUST be over 21 and cannot have been a high school student driver or human player on a FIRST team. One high school team member MUST serve as the on-field coach but cannot touch the controls or the balls. This match WILL count in your qualification points. You may recruit adults from another team if you cannot field a group of three adults from your own.

XIII. Webcast

- A. We are working with SOAP for a webcast again this year.
- B. Webcast details will be provided when available.

XIV. Food

- A. At the IRI – Food, snacks and drinks will be available in the school concession stands.
- B. In the area – The IRI is located near 82nd Street and I-69, Castleton Mall, Keystone at the Crossing and several other shopping areas. Just about any meal you desire is available in the general area.
- C. Friday Night – All team members, Engineers and Mentors are invited to dinner. Dinner will be served between match play and the Talent Show.
- D. Saturday Morning – A light breakfast will be provided to all participants. Details and times will be provided.

XV. T-Shirts

- A. 2004 IRI T-Shirts will be available for purchase – cash or check only.
- B. T-shirts will be \$10.

XVI. Other Entertainment

- A. Indianapolis is home to many family oriented attractions. Museums, the 500 track, bowling, laser tag and other facilities are in the general area.
- B. The Indianapolis Indians, Minor League Baseball Team, are in town July 8, 9, 10 and 11. Tickets are \$8 - \$12. The field offers a fantastic view of the Indianapolis skyline as well as exciting baseball, up close and personal. Visit www.IndyIndians.com for details and tickets.

XVII. Hotels

- A. Many hotels are located in the I-69, 82nd Street, 96th Street area. Be sure you are on the North-East Side of Indianapolis
- B. The following hotels have expressed an interest in special rates available for the IRI. More details will be provided.
 - 1. The OMNI
 - 2. The Candlewood
 - 3.

XVIII. Special Events

- A. Senior Recognition – we will recognize all graduating seniors on Friday evening, before dinner. Please send a list of these students to Seniors@IndianaFIRST.org. Please be sure to include the team number in the listing. Please send no later than June 15, 2004.
- B. Talent Show – Friday evening will feature the first ever (if we ignore some of the on-field antics) IRI Talent Show. The show will begin near the end of dinner time. The stage will be the IRI playing field. Guidelines will be developed. All performances must be in good taste and suitable for family enjoyment. Send entries to Talents@IndianaFIRST.org.
- C. UFH – Unsung First Heroes – During the event, UFH's from the Chief Delphi Forums will be highlighted.
- D. IRI Quilt – A friend of Team 234 has agreed to create an IRI Quilt. Please bring a team shirt to donate. When complete, the quilt will be displayed at prominent venues, likely the Statehouse, the Children's Museum and other places.
- E. Team Photo – There will be a designated area for team photos. These photos will be used during the awards ceremony.
- F. Human Player Game – Details will be provided.

XIX. Awards and Competitions

- A. Awards
 - 1. Several new awards will be included for 2004 (noted by *).
 - 2. Descriptions of the 2004 Award can be found in Attachment I.
 - 3. Some awards require 'up front' work. Please read the descriptions and requirements carefully.
 - 4. Team Awards Include
 - a. Spirit of Indiana
 - b. * Most Awesome Drive-train
 - c. Outstanding Quality
 - d. Leadership in Control
 - e. Imagery and Design
 - f. Driving Tomorrow's Technology
 - g. Team Spirit
 - h. FIRST Philosophy
 - i. Rookie
 - 5. Individual Awards Include
 - a. * IRI Mentor of the Year
 - b. IRI Scholarship

XIX. Awards and Competitions (cont.)

B. Competitions

1. There are two new competitive awards for 2004 (noted by *)
2. Descriptions of the 2004 Competitions can be found in Attachment II
3. Some of the competitions require an entry in advance of the IRI. Please read the descriptions and requirements carefully.
4. Team Competitions Include
 - a. * President's Award – our top honor
 - a. IRI Chairman's Award – prepare a presentation about the 2004 IRI
 - b. Animation Award – complete a project at the IRI
 - c. * Website Design Award – design a website to the identified requirements

XX. Key Roles

Event Manager	Chris Fultz (234)
Volunteer Coordinator	Libby Ritchie (393)
Judge Recruiter	Chris Fultz
Facilities Coordinator	Libby Ritchie
Competition Coordinator	Andy Baker (45)
Head Referee (ref coordinator)	Andy Baker
Field Manager	Steve Wherry (234)
Judge Coordinators	Collin Fultz, Jason Kixmiller (234)
Award Coordinators	Collin Fultz, Jason Kixmiller, _____ (393)
M/C, Announcers	Dan Green, Paul Copioli, tbd
Event Scoring & Match Scheduling	David Kelly, Ken Leung
Webcast	Kenny Ardizzone (108)
Pit & Field Layout	Mike Koiro (234)
Traffic Flow	Mike Koiro
Pit Administration	Jeff Alexander (234)
Pit Announcer	tbd
Field Acquisition	Andy Baker
Field Setup & takedown	Andy Baker
Practice field	tbd (if available)
Tarps and floor covering	tbd
Publicity / PR	tbd
Concessions	Kil-a-bytes, Team 1024
Food Coordination (Friday night)	CyberBlue Parent Crew, Scott Ritchie (234)
VIP/Judges/Volunteer room	tbd
Animation competition	Dan Ward, Kyle Wiley, Luke Ward (45)
Saturday breakfast	Teams 217 and tbd
Video	Matt Fultz
Team Relations	Libby Ritchie
Talent Show	Amanda Morrison, DJ Fluck, David Kelly
Website registration	David Kelly, Brandon Martus

OVERVIEW

This section provides a general summary regarding the awards and competitions for both team and individuals at the Indiana Robotics Invitational (IRI) 2004. Please read the following descriptions and that some of the competitions require a written submission or application for consideration. **NEW:** Please notice the awards marked with an asterisk (*) for they are new awards for the 2004 IRI.

TEAM AWARDS

The *TechnoKats* Spirit of Indiana Award

This award celebrates the top Indiana team regarding spirit, motivation and overcoming obstacles.

***The Most Awesome Drive System Award**

This award will celebrate the team that has created, by the judge's best approximation, the most awesome drive system. The criteria and definition of the word 'awesome' is left up to the judges.

The Outstanding Quality Award

The Outstanding Quality Award celebrates quality and robustness in robot design, build, and operation.

The Leadership in Control Award

The Leadership in Control Award celebrates an innovative control system or application of control components to provide unique functions and a competitive edge in this year's game.

The Imagery and Design Award

The Imagery and Design Award celebrates attractiveness and uniqueness in engineering, aesthetics, design or construction.

The Driving Tomorrow's Technology Award

This award celebrates an elegant and advantageous feature of a machine. The criteria for this award are based on the team's ability to verbally describe, as well as demonstrate said feature.

The Team Spirit Award

This award celebrates the team who shows the best team spirit both in the stands and in the pits.

The FIRST Philosophy Award

This award celebrates the team that best displays the sense of "Co-opertition" by cheering and assisting others, while concurrently working their own strategy to perform their best.

The Rookie Award

This award celebrated the best all around rookie team (new to FIRST competition in 2004).

Attachment II - IRI Competitions

***The President's Award**

The President's Award will be awarded to the team who best works to demonstrate Rolls-Royce's three pillars of success – Integrity, Reliability, Innovation – through the team's actions in their community, with their sponsor, and within FIRST, as well as with the team's robot in competition. This is the IRI's highest honor.

Each team wishing to submit an entry for the President's Award must complete a one page summary of how they have built their team upon these three pillars of success. Entries must be e-mailed to presidents@IndianaFIRST.org no later than June 30, 2004. Seven finalists will be chosen from the written submittals and interviewed from the field of entries. Then, one winner and two runner-up teams will be announced at the closing ceremonies on Saturday, July 10, 2004.

Entries must be one page, in Microsoft Word, 10 point minimum type, and have the team name and number in the footer.

The IRI Chairman's Award

The IRI Chairman's Award will be a new assignment for 2004. Each team may submit one Chairman's Award Presentation. Presentations will be judged on creativity, content, message, and technical accomplishment. Interested teams must register in advance, no later than June 1, 2004. Send your intention to IRIChairman@IndianaFIRST.org.

The Chairman's requirements will be released on June 1, 2004 and will be emailed to all teams that have registered in advance to the email address above. Entries will be due on Friday, the first day of the event.

The IRI Animation Award

This year's IRI Animation Award will be given to the team who, in the judge's evaluation, most successfully completes the 2004 IRI Animation Challenge. Entries will be judged on creativity of ideas, technical difficulty, and expression of message. Each team may submit one entry. Interested teams must register in advance so that adequate computer resources are available. Send your intention to Animation@IndianaFIRST.org.

The Animation Challenge will be released on Friday, the first day of the IRI.

The Website Design Award

The Website Design Award will be presented to the team that creates the best website as defined by a special set of criteria. The 2004 Web-Site Design theme and competition details will be released on June 1, 2004 and will be emailed to all teams that have registered their intent to participate in this special competition. The entry deadline will be July 1, 2004. Entries will be judged on-line between July 2nd and July 9th.

Participating teams must register their intention to participate in advance. Please send your intent to Website@IndianaFIRST.org.

INDIVIDUAL AWARDS

***The Indiana Robotics Invitational Mentor of the Year**

This award celebrates the selected the mentor from a team participating in the 2004 IRI. Each team may nominate one individual for this award. Nominations should be a one page typed maximum, Microsoft Word document, 10 pt type minimum, essay describing the mentor's activities to help his/her team grow within itself and to help the FIRST community 'Raise the Bar'. Nominations should be e-mailed to Mentor2004@IndianaFIRST.org by June 30, 2004. Nominations should have the nominee's name, team number, and team name in the footer. The winner will be announced during the closing ceremonies.

IRI Scholarship

A \$1000 Scholarship will go to a graduating senior student from a FIRST Robotics Team competing at the 2004 IRI. The student must have either attended an Indiana High School or be currently accepted for the fall 2005 semester at an Indiana college. Entry requirements are:

1. A 500 word essay on how FIRST participation has impacted your life.
2. A reference form from a Mentor, Engineer or Teacher on your team.
3. A reference from one other adult.

Once the essay is complete, please email it to IRIScholar@IndianaFIRST.org no later than June 30, 2004. Interviews of finalists will be conducted at the IRI July 9-10, 2004 and the scholarship winner announced during the closing ceremonies.

Students should visit www.IndianaFIRST.org and download the reference form that MUST be used. This form contains details of how the reference can submit their form to the IRI selection team.