

# TECHNO *Kats*

**Robotics Team**

## 2005-2006 Team Handbook



**15<sup>th</sup>  
Year**

# DELPHI



## Purpose

This Handbook is an information source and communication tool for the TechnoKats Robotics Team, their supporters, families, and for other FIRST Robotics Teams.

## Contents

	page
Purpose & Contents	1
Team Partnership & Goals	2
TechnoKats History	3
Team Awards	4
Team Organization (Delphi, Kokomo Schools, Ivy Tech, Bot Boosters)	5
Team Projects	6
Schedule: September & October 2005	7
November & December 2005	8
January & February 2006	9
March & April 2006	10
Scholarship: Grade Requirements & Opportunities	11
CAD Animation Team	12
Fundraising and Financial Issues	13
Student Involvement & Membership Eligibility	14
Team Travel & Commitment Deadlines	15
Adult Involvement	16
Community Involvement	17
Student Competition Role Application	18
Student Contract	19
TechnoKat Shop Map	20
Contacts: Phone #s, emails, and weblinks	21

This handbook is current on 8/29/05. Details may change throughout the year, especially the schedule. For a current schedule, see [www.technokats.org](http://www.technokats.org).

## Team Partnership

This partnership is between these organizations:

Kokomo-Center School Corporation, managing partner  
Kokomo High School, Kokomo Area Career Center  
Delphi Electronics & Safety, Kokomo, managing partner  
Ivy Tech Community College Region 5, supporting partner  
Cinergy / PSI, facility provider

Active members of the TechnoKats Robotics Team include:

- Kokomo High School students
- Kokomo High School teachers
- Kokomo Area Career Center teachers
- Ivy Tech Community College instructors
- Delphi employees
- Team member parents

The partners on this team provide the following:

Kokomo Center School Corporation:

- Students & sponsoring teachers
- Travel costs of teachers to Nationals
- KACC facility use (machine trades fabrication, etc.)
- Bus and van transportation

Delphi

- 70% of team costs
  - Competition entry fees
  - Materials, parts & tools
  - Regional travel costs
- Engineering mentorship

Ivy Tech State College

- CAD/Animation project – teaching & mentoring
- Fabrication training @ Touby Pike facility
- Hosting of workshops (fabrication, design, etc.)
- Travel costs of instructors to Nationals

Cinergy / PSI

- Provides space in their Deffenbaugh warehouse for TechnoKat shop (since 1998)

## Team Goals

- Inspire students about technology, math & science
- Prepare students for leadership roles
- Promote the ideals of FIRST
- Increase community and state awareness of science and technology education opportunities
- Promote teamwork skills
- Introduce students to positive role models
- Boost the level of competition in FIRST by providing technical assistance and organizational mentoring to any FIRST team

## Team History

The TechnoKats Robotics Team ([www.technokats.org](http://www.technokats.org)) competes in the FIRST Robotics Competition ([www.usfirst.org](http://www.usfirst.org)) as “team 45”.

FIRST (For Inspiration and Recognition of Science and Technology) focuses on **inspiring** students in math, science, and technology fields through sponsoring a nationwide robotics competition. Many students and adults get very excited about competing in this challenging and fun atmosphere.

The 2005-2006 season is the 15th year for the TechnoKats and FIRST. In 1992, the Kokomo HS – Delco Electronics partnership was one of 28 teams to compete in the inaugural FIRST Competition. Since then, FIRST has grown to include over 1100 teams in numerous countries. During this time, the team’s partnership has also grown. Over the years, Delco became a division of Delphi, Ivy Tech became a TechnoKat supporting partner, and the TechnoKats have made a name for themselves in Howard County and the FIRST community.

We are proud of our history. We have a strong tradition of competing at a high level in FIRST while also being a model team in showing “gracious professionalism” as we compete. We have mentored many teams, both in Indiana and across North America. These teams and others in the FIRST community look to the TechnoKats as a model FIRST team. We continually strive to uphold that model for how a FIRST team should be organized and how they should compete.

During these many years, the team has been led by the partnership between Delphi and the Kokomo Center School Corporation. CAD design teacher at KACC, Chris Byam, is the team leader from the Kokomo Schools. Mechanical Engineer Andy Baker is the team leader from Delphi. The success and stability of the team is a direct result of the strong partnership between Delphi-D and KCSC, and to the dedication of mentors, sponsors, and students.

Many students have been TechnoKats. Many have gone on to work as engineers, scientists, and entrepreneurs in various fields. We have alumni working in the automotive industry, for companies like Delphi and GM. Other alumni work in aerospace, information technology, consumer electronics, and healthcare. We are sure that being a TechnoKat played a big role in their success today.

1998 FIRST National Champions

2003 Midwest Regional Champions

## Awards

### **1992 National Competition Finalist**

1992 Ultimate Keeper Award

1994 Chairman's Award Finalist

1995 Chairman's Award Finalist

### **1998 National Competition Champion**

1998 National "Technical Excellence" Award

1998 Great Lakes Regional Runner-Up

1998 Great Lakes Regional "Best Play" Award

### **1999 National Competition Runner-Up**

1999 Midwest Regional "Outstanding Defense"

2000 National "Xerox Creativity" Award

2000 Midwest Regional Champion

2000 Great Lakes Regional Runner-Up

2000 Scholarship: Vinny Cothorn, \$20,000 Kettering University

2001 National Competition #1 Seed & Finalist

2001 Midwest Regional GM Industrial Design Award & Finalist

2001 W. Michigan Regional Leadership in Controls Award & Finalist

2001 Scholarship: Philip Lundberg, \$20,000 Kettering University

2002 Championship Competition #4 Seed & Finalist

2002 Championship Autodesk Animation Technical Excellence Award

2002 Midwest Regional Chairman's Award Winner

2002 Midwest Regional Runner-up

2002 Indiana Vocational Education Excellence Award

2003 Championship Competition #3 Seed

2003 Midwest Regional Champion

2003 Midwest Regional Judges Award for Exemplary Sportsmanship

2003 St. Louis Regional Sportsmanship Award

2003 Pittsburgh Regional Sportsmanship Award

2003 Championship Woodie Flowers Award Winner, Andy Baker

2004 Championship Competition, final 8

2004 Midwest Regional Champions

2004 Midwest Regional Sportsmanship Award

2005 Championships Competition, division semi-finalist

2005 Midwest Regional Engineering Inspiration Award

2005 Midwest Regional Safety Award

2005 Boilermaker Regional Judges' Award for Outstanding Excellence

2005 Scholarship: Austin Butler, \$30,000 Delphi/Purdue University FIRST Scholarship

2005 Scholarship: Greg McCoy, \$2,000 Boilermaker Regional Scholarship, \$1,000 IRI Scholarship



2000 Midwest Regional Champions

1999 FIRST  
National Runner-up

More important than winning awards, students are being inspired. TechnoKat alumni are pursuing science and engineering degrees at prominent universities. Many have begun technical careers. There is proof that FIRST is working and being a TechnoKat is rewarding. At the same time, engineers and teachers are having fun, sharpening their design and leadership skills. These mentors work together and learn from each other while inspiring students.

# Team Organization

## Kokomo Center School Corporation:

Chris Byam	CAD & Design Teacher	Team Leader
Judy Harris	Biology & Science Teacher	Fundraising
Tim Railey	Automotive Technology Teacher	
Christy Swindell	Physics & Science Teacher	Travel Coordination

## Delphi:

Andy Baker	Mechanical Engineer	Team Leader
Alan Anderson	Software Engineer	Software Leader
Jim Beckwith	Electrical Engineer	
David Brown	Mechanical Engineer	
Mike Carmain	Mfg. Test Engineer	
Mike Coady	Manufacturing Manager	Executive Sponsor
Mark Koors	Systems Engineer	Mechanical Leader
Amy Przybylinski	Mechanical Engineer	
Tom Sweeny	Software Engineer	

## Ivy Tech State College:

Daniel Ward II	Design Technology Chair	CAD/Animation Leader
Luke Ward	CAD / Graphics Instructor	
Kyle Wiley	Visual Comm. Chair	Graphic Design

## Bot Boosters (parent's group)

Michele Bender  
Denise Beckwith  
Marilyn Brown  
Rosemary Pike

The Bot Boosters are the parental support of the team. With this brand new year we are expanding our involvement. We are looking for any parents interested in working with other parents in any of the following support areas: Saturday meals for our team; Team Spirit (both decorations and cheering); extra team activities (such as bowling or a movie); creative fundraising activities; and new projects for the team. Contact Michele Bender at [mishbender@insightbb.com](mailto:mishbender@insightbb.com) to be more involved.

## Students:

Many students return for the 2005-06 year, with many Seniors and Juniors ready to lead and perform. We are constantly accepting new members, up until the middle of January. Student leaders will be chosen early in the fall semester. These students will pair up with the above leaders to run the TechnoKats for the upcoming year.

2002 Team Meeting @ Epcot Championships

2004 Repair  
@ Great Lakes Regional

## 2005-2006 Team Projects

### Fall 2005

Bona Vista Playground Modeling  
Drive Base Design & Build  
New Year's Eve Ball Drop  
Software Training  
Electrical Wiring Training  
CAD/Animation Training  
Graphic Design Training  
Kokomo FIRST Kickoff  
Indiana FIRST Workshops (10/29)  
Webmaster

### Student Leader, Adult leaders

Kristina Bender, Andy Baker, Mark Koors  
Nick Boyce, Kyle Love, Andy Baker  
Mark Koors  
Alan Anderson  
Dave Brown, Jim Beckwith, Tom Sweeny  
Dan Ward, Luke Ward  
Kyle Wiley  
Dan Ward  
Andy Baker, Dan Ward  
Michael Hill

### Winter/Spring 2006

Boilermaker Regional Planning Committee      Amy Przybylinski, chairperson  
FIRST Robotics Competition                      Andy Baker, Chris Byam & all  
Bona Vista "Putt Around Kokomo"              Chris Byam, Kyle Wiley  
Indiana Robotics Invitational                      Andy Baker, Mark Koors

### Past Projects

1994-1997: Pop Can Regatta  
1998-2000: TechnoKat Challenge  
1998-2000: Haynes Apperson Parade  
1999-present: New Year's Eve Ball Drop  
1999: KHS Technical Library  
2000: Haynes Car Turntable  
2000-2003: TechKnowFest (Ivy Tech)  
2000-present: Indiana Robotics Invitational (IRI)  
2001-2003: Delphi Technical Forums  
2001: FIRST Lego League team sponsorship & startup  
2001: ChiefDelphi Invitational Robot Build  
2002: Bona Vista TechnoBox  
2002-present: Indiana FIRST Workshops & Leaders Meetings  
2003: Tinkertoy Challenge  
2003-2004: RibFest Pig Drop  
2003-present: RoboEducators (Ivy Tech)  
2003-present: Bona Vista Putt-putt course construction and participation  
2004: United Way Donation Tracking with Lighted Ball  
2004: Woodie Flowers Award mobius assembly  
2005: FIRST Lego League Mentoring  
2005-present: IRI Vex Challenge (Ivy Tech & team 447)  
2005-present: Boilermaker Regional Planning Committee

Bona Vista TechnoBox

1999 Ball Drop

IN FIRST  
Workshops

Tinkertoy  
Challenge

# September

				1	2	3
4	5 Labor Day, no school	6	7 Veterans meeting, 6-8:00, Bakers, pizza pitch-in, \$5	8 Project Work* at TK Shop: 4:00-5:30, Anderson, Baker, Koors	9 (KHS football home)	10
11	12	13	14 Team Meeting: 4-5:30 TK Shop, Team Leaders	15	16 Training TK Shop: 2:30-5 CAD & Animation, Wards	17
18 Boilermaker Regional Meeting in West Lafayette	19	20 1/2 day off KHS	21 1/2 day off KHS	22 Project Work at TK Shop: 4:00-5:30, Anderson, Baker, Koors	23 Fabrication training @ Ivy Tech: 2:30-5:00, Turmpaugh, (KHS football)	24
25	26	27	28 Girl's Night @ Shop 4-5:30pm, Baker, Przybylinski, Koors	29	30 Training TK Shop: 2:30-5 CAD Anim., Wards, (KHS Homecoming)	

# October

						1
2	3	4	5 TK Shop: Student Meet 2:30-4, Projects: 4-5:30, Leaders	6	7 Fabrication training @ Ivy Tech: 2:30-5:00, Turmpaugh	8 Ford Sweet Repeat, Michigan, Przybylinski, Anderson, Boyce
9	10	11	12 KHS Open House Demo 6:00-7:45 PM, Student Leaders	13 Project Work at TK Shop: 4:00-5:30, Anderson, Baker, Koors	14 Training TK Shop: 2:30-5 CAD & Animation, Wards	15
16	17	18	19 Early Release, Team Meeting: 4-5:30 TK Shop, Team Leaders	20	21 Fabrication training @ Ivy Tech: 2:30-5:00, Turmpaugh	22
23	24	25	26 Girl's Night @ Shop 4-5:30pm, Proj. Anderson, Baker, Koors, Amy	27	28 Fall Break, No School	29 Indiana FIRST Team Forums, Ivy Tech 8:30-4:00, Baker, Ward
30	31					

# November

		1	2	3	4
			TK Shop: Student Meet 2:30-4:00 Projects: 4-5:30 Leaders		Training TK Shop: 2:30-5 CAD & Animation, Wards
					Prom
6	7	8	9	10	11
			Delphi Tour: 2:30 at CTC, finish at 5:00 Baker	1/2 day off KHS Projects at TK Shop: 4-5:30 Leaders	Fabrication training @ Ivy Tech: 2:30-5:00, Turnpaugh
13	14	15	16	17	18
			Team Meeting: 4-5:30 TK Shop, Team Leaders		Training TK Shop: 2:30-5 CAD & Animation, Wards
20	21	22	23	24	25
				Thanksgiving	No school / Delphi holiday
27	28	29	30		
			Girl's Night @ Shop 4-5:30pm, Proj. Anderson, Baker, Koors, Amy		

# December

				1	2
					Fabrication training @ Ivy Tech: 2:30-5:00, Turnpaugh
4	5	6	7	8	9
			TK Shop: Student Meet 2:30-4:00 Projects: 4-5:30 Leaders		Training TK Shop: 2:30-5 CAD & Animation, Wards
11	12	13	14	15	16
			Team Meeting: 4-5:30 TK Shop, Team Leaders		Fabrication training @ Ivy Tech: 2:30-5:00, Turnpaugh
18	19	20	21	22	23
	Finals	Finals			
25	26	27	28	29	30
		Ball Drop Setup and Practice 9:00-1:00			Ball Drop Setup 1:00pm, Performance 10:30pm
					31

January						
1	2	3	4	5	6	7
		School begins	2:30-5:00 Shop work 4:30 team meet			9am-5pm <b>Kickoff</b> Ivy Tech
8	9	10	11	12	13	14
1-5:00pm Work session subteams	2:30-6:00 Work Session	7:00-9:00pm NIGHT Work early release KHS	2:30-6:00 Work session 4:00 Design Presentations	2:30-6:00 Work session 4:00 Design Assignments	2:30-5 Animation	9:00-4:00 Work Session
15	16	17	18	19	20	21
1:00-5:00 Work session	noon-6:00 Work Session MLK no school	7:00-9:00 Night Work Session	2:30-6:00 Work session 4:30 team meeting	2:30-6:00 Work Session	2:30-5 Animation	9:00-4:00 Work Session
22	23	24	25	26	27	28
1:00-5:00 Work session	2:30-6:00 Work session	7:00-9:00 Night Work Session	2:30-6:00 Work session 4:30 team meeting	2:30-6:00 Work Session	2:30-5 Animation	9:00-4:00 Work Session Travel Commitments due
29	30	31	February			
1:00-5:00 Work session	2:30-6:00 Work session	7:00-9:00 Night Work session				
			1	2	3	4
			2:30-6:00 Work session 4:30 team meeting	2:30-6:00 Work Session	2:30-5 Animation KHS Cirriculum Day	9:00-4:00 Work Session
5	6	7	8	9	10	11
1:00-5:00 Work session	2:30-6:00 Work session	7:00-9:00 Night Work Session	2:30-6:00 Work session 4:30 team meeting	2:30-6:00 Work Session	2:30-5 Animation	9:00-4:00 Work Session
12	13	14	15	16	17	18
1:00-5:00 Work session	2:30-6:00 Work Session	7:00-9:00 Night Work Session	2:30-6:00 Work session 4:30 team meeting	1:00-6:00 Work Session KHS early release	2:30-5 Animation movie night	9:00-4:00 Work Session <b>OPEN HOUSE, 2:00-4:00</b>
19	20	21	22	23	24	25
1:00-7:00 Work session	No School noon-7:00 mee 4:30 team meet, 6:00 pizza	Robot Ship	off Confirm Robot shipment	off	2:30-5 Animation	off
26	27	28	February			
off	Practice tbd	Practice tbd				

# March

			1 2:30 work in shop 4:30 team & parents meet. travel \$\$\$ Due	2	3	4	
				FIRST Regionals: Manchester (NH), Trenton (NJ), Richmond (VA), Portland (OR)			
5	6 No school	7 practice tbc	8 2:30 - practice. 4:30 team meeting	9	10	11	
				FIRST Regionals: Phoenix, Cleveland, Rochester (NY), Orlando, Ypsilanti (MI), Pittsburgh, St. Louis, Hartford (CT)			
12	13 Practice tbc	14 practice tbc	15 2:30 - practice. 4:30 team meeting	16	17	18	
				<b>Boilermaker Regional, West Lafayette, IN</b>			
19	20 Practice tbc Confirm robot shipment	21 practice tbc	22 KHS early release	23	24	25	
				FIRST Regionals: Boston, Sacramento, NYC, Long Island (NY), Los Angeles, Waterloo (Canada), Milwaukee (WI)			
26 Easter	27 Practice tbc Confirm robot shipment	28 practice tbc	29 practice tbc	30	31		
				FIRST Regionals: Denver, Toronto (Canada), Las Vegas, Houston, Columbia (SC), Philadelphia, Allendale (MI)			

# April

							1
2	3	4	5	6	7	8	
				<b>KHS Spring Break</b>			
9	10 tbc	11 tbc	12 2:30 work in shop 4:30 team meet	13	14 Good Friday, no school	15	
16	17 Tbc	18 tbc	19 2:30 - 6:00 Championship Readiness 4:30 team meeting	20	21	22	
23/30	24 snow day	25	26	27	28	29	
				<b>FIRST Championships, Atlanta, GA</b> Travel via bus, departing Wed. morning & returning Sunday evening.			

## Scholarship: Requirements & Opportunities

According to the student contract (page 21), each student must maintain a “C-” or above average in EACH of their courses in order for that student to be eligible for team travel.

### **GRADES ARE A PRIORITY:**

This grade requirement is strict and is not trivial. Students should put their grades before any team needs. This grade policy stands for AP courses also. There are no exceptions unless team leaders find an extra-ordinary situation that deems the exception.

### **ASSISTANCE:**

In order to help the students meet this requirement, study tables and tutoring will be available for students who are in need of assistance. Students should depend on team mentors for personal tutoring assistance, if needed.

There are many **REWARDS** for being a TechnoKat:

#### **1. Scholarships**

- Each graduating senior will receive \$100 per year of team membership (in full) as a college scholarship. Also, they must have at least one other year as an active member.
- There are MANY other scholarships available for FIRST Team members. Check out [www.usfirst.org/Scholarships/](http://www.usfirst.org/Scholarships/).

#### **2. Internships**

- Experienced TechnoKats are exposed and preferred for internships within Delphi-Delco and other companies.
- Delphi-Delco hires college-aged interns at the Kokomo facility. For more information and timing on this, contact Andy Baker (451-9380)

#### **3. Experience**

- Many corporations across the nation are participating in FIRST and want to hire FIRST students. Being on a FIRST team will expose students to these corporations and also help teach the skills that these companies desire.

## Animation Team

An integral part of the TechnoKats Robotics Team is the award-winning Animation Team. This team consists of Kokomo High School students, professors and instructors of Design Technology and Visual Communications from Ivy Tech State College, and engineer mentors from Delphi Corporation

The Design Technology mentors at Ivy Tech State College provide Computer-Aided Drafting and Design (CADD) instruction and the student animators use this information to construct the animation for the FIRST Robotics Competition.

The Animation Team focuses on these points:

1. Provide an environment conducive to the development of technical knowledge, technical proficiency, and critical thinking skills so FIRST animators may develop useful skills in their education in addition to the robot animation.
2. Use of state-of-the-art computers and software including the latest versions of AutoCAD, Inventor and 3D Studio MAX.
3. Preparing students to respond to future advances and changes in their educational pursuits.

The mission of the departments of Design Technology and Visual Communications at Ivy Tech State College is to prepare students to be practical practitioners of applied computer graphics. The departments are recognized as national leaders through their talented faculty and their excellence in learning, discovery and engagement.

Design Technology and Visual Communications prepare visually oriented students who are interested in creating and managing the production of computer graphics for a wide range of industry. Students work in computer labs developing their graphics skills, techniques, concepts, and management ability through individual and team-based projects. Design Technology students can select one of three specialty areas in computer graphics, mechanical CADD, or manufacturing graphics.

Here is a screen capture from our award-winning 2001 animation entry.

Vinny Cothorn:  
\$20,000 Kettering  
University Scholarship

Austin Butler (middle):  
\$30,000 Delphi/Purdue  
University Scholarship

Phil Lundberg (right):  
\$20,000 Kettering  
University Scholarship

Greg McCoy (right):  
\$2,000 Boilermaker  
Scholarship  
\$1,000 IRI Scholarship

***Since 2001, \$9,000 in additional "senior scholarships" have been awarded by Delphi to TechnoKat graduating seniors.***

## Fundraising and Financial Issues

The team is fortunate to have excellent sponsors. Delphi serves as the main financial sponsor, but students still need to pay their way to events, depending on their level of team participation and effort. There are many costs to the team.

Costs covered by Delphi:

- FIRST Competition entry fees
- Robot parts & materials
- Playing field costs
- Portion of team uniforms
- Competition Travel
  - Regional Competition travel (different levels)
  - Championship travel (for engineer mentors)
- Awards for team members & senior scholarships

Costs covered by TechnoKats' not-for-profit "club fund" (funded by team, parent & student fundraising)

- Fall Project costs
- Student portion of FIRST Championship Competition (see below)
- Non-FIRST Competition costs

Costs covered by Kokomo Center School Corporation:

- Teacher sponsor contracts (4)
- Championship Competition travel for 2 teachers
- Bus transportation to/from Regionals and Indy airport as needed

Costs covered by Ivy Tech State College:

- Instructor travel costs to Championship competition (3)
- Hardware costs for animation
- Computer hardware for TechnoKat computer lab
- Use of facility for Kokomo Kickoff event



## **STUDENT FUNDRAISING**

For the past few years, students have raised from \$100 - \$400 in order to travel to the FIRST Championships. In 2005, the cost was \$275. This year, each student can expect to fundraise as much as \$350 to be an active member of the team. This money goes to pay student travel costs. See "Student Involvement" for eligibility information regarding "active" members.

## Student Involvement

TechnoKat students have many ways to be involved with the team. In the fall, they participate in the team events and meetings. Starting in January, students are required to become more active members of the team and really get involved in the FIRST program. These opportunities are available for students:

- Team leadership positions
- Mechanical Design
- Electrical Design & Software Development
- Shop Management, Part Fabrication & Assembly
- Marketing, Public Relations & Media Publications
- Fundraising
- CAD and 3D Animation
- Strategy Development & Robot Operation
- Videography & photography

## Student Membership Eligibility

The TechnoKats are accommodating various levels of student participation for the 2005-06 year. Students must put in a certain level of involvement to be considered an active member. In order to be considered “active”, a student must meet these requirements:

- Attend 50% of all team activities between Jan 4<sup>th</sup> (pre-kickoff meeting) and Feb. 21<sup>st</sup> (robot ship date)
- Meet team grade requirements
- Be productive on the team and comply by TechnoKat “shop rules”
- Participate in 1 mentoring, demonstration, or community service project\*

Active status for all students will be reviewed by the end of January. Final status will be announced on Monday, Feb. 20<sup>th</sup>, as the active students will be awarded the right to compete as TechnoKats in the March and April FIRST Robotics Competitions.

\* - these activities and hours performed must be approved by a team mentor (adult) and the receiving party (if necessary)

## Team Travel

Only active team members are allowed to travel with the team and participate on the team. Family members are encouraged to attend competitions with the team. They can either plan their own travel arrangements, or work through team travel arrangements. If they are using team travel arrangements they need to realize that they must abide by the specifics of the team travel coordinator.

Any person traveling with the team must commit by writing a check and giving it to the team travel coordinator for **\$100 on or before Saturday January 28<sup>th</sup>**.

**This is a commitment deadline for all team members!**

**Final travel money is due on Wednesday, March 1st.**

Students who have fundraised more than their travel costs will have their travel deposits returned.

The \$100 deposit is for all team members traveling with the team. This is for students, parents, mentors, siblings, and anyone else traveling with the team. No exceptions are allowed.

Students must meet the team grade requirements to travel with the team, as described in this handbook.

While traveling with the team, students will stay at hotels. They will stay in rooms with up to 4 students in one room, sharing 2 double or queen beds. Students need to communicate their special needs with regard to travel to team mentors and the team travel coordinator.

For the 2006 competition season, we plan on attending 2 Regional Competitions and the FIRST Championships.

We are committed to the Boilermaker Regional on March 16-18, in West Lafayette, IN

We will attend a second FIRST Regional in the March and April time frame. This regional may be local (Milwaukee, Michigan, St. Louis) or it might be far away (LA, East Coast). We are fortunate to be pre-qualified for the FIRST Championships. We are one of the few teams who have this pre-qualification as an active member of FIRST for each of its 15 years.

FIRST Championships:                      April 27-29, Georgia Dome, Atlanta, GA

## Sponsor (adult) Involvement

TechnoKat adult sponsors are encouraged to help out in any way they can assist the team. The efforts of these sponsors must be student-focused and within the spirit of FIRST. There are many chances to mentor TechnoKat students as a sponsor, such as:

- Mechanical Machine Design
- Electrical Design & Wiring
- Software Devel. & Programming
- CAD – Design, Drafting, Animation
- Metalworking & Part Fabrication
- Carpentry & Construction
- Project Leadership
- Marketing & Public Relations
- Fundraising & Financial Management
- Video & Graphical Publications
- Machine Shop Management
- Strategy Development & Coaching
- Travel Coordination
- Event Planning

Adults volunteer their time to act as coaches and mentors by working with the students during team meetings, after regular work hours, and during weekend work sessions, and at project and FIRST Competition events.

Focusing more on Delphi engineer activity, here are expectations from a "lead" engineer (lead electrical, lead software, lead mechanical):

### **Fall Activities:**

September: Attend 3 meetings at TK Shop, from 4:00-5:30

October: Attend 4 meetings at TK Shop, from 4:00-5:30 & attend Teams Workshop on 10/29

November: Attend 4 meetings at TK Shop, from 4:00-5:30 & help with Delphi tour if available

December: Attend 2 meetings at TK Shop, from 4:00-5:30 & help with Ball Drop setup

(some of these meetings will be work sessions led & planned by you)

### **Build season:**

#### January

Attend kickoff

Attend & lead shop work session 1 weekday per week

Attend Saturday work sessions as available

Come by shop when departing work (5:00?) to check on progress in your area, each day or every other day.

Attend Sunday work sessions as available

(totals: 3 or 4 work sessions from 2:30-6:00, 3 Saturdays)

#### February

Attend & lead shop work session 1 weekday per week

Attend Saturday work sessions as available

Stay at shop later in the evening as we get closer to "ship date". Sometimes, this includes coming back into shop from 9:00-11:00pm (5-8 times, during weeks of 2/6 - 2/21)

Attend Sunday work sessions as available

(totals: 3 or 4 work sessions from 2:30-6:00, 3 Saturdays)

The above schedule is for a LEAD engineer on TechnoKats who has responsibility for some portion of the robot build (mechanical, electrical, software).

Delphi engineers can significantly impact the team without attending all of these work sessions above. They help one of the lead engineers in the area they choose. These mentors can make an impact while helping to lead a project, a fundraising effort, or some sort of mentoring and input on our team.

### Community Involvement

The TechnoKats keep active in the local community, as they host events, make demonstrations and support other math and science-related programs for the area's students. See page 6, "team projects" for a list of current and past community related projects. The TechnoKats "community" includes not only the Kokomo area but also FIRST Competition teams in Indiana and across the FIRST Community.



## 2005-2006 TECHNOKATS STUDENT CONTRACT

By signing below I acknowledge and understand these points and agree to all of the below rules and conditions:

1. I have read the 2005-06 TechnoKat team handbook.
2. I plan on gaining active member status. I will communicate with my adult mentors and I take responsibility to communicate my team efforts. If I am not considered to be an active member by Feb. 20<sup>th</sup>, then I agree that I will not be a participating member of the TechnoKats at FIRST Robotics Competitions.
3. I am responsible for arranging my transportation to and from the TechnoKats Shop at Cinergy PSI.
4. I understand that I may be absent from school during travel to two Regional competitions and the Championship Competition (locations and dates to be determined). I am responsible for all make-up work while absent and will stay focused on my schoolwork responsibilities.
5. I understand that I am responsible for my schoolwork. If any of my grades are below a "C-" during the grade checking period prior official FIRST competition trip, then I will not travel with the team to the event. If I don't meet these grade requirements, then I can only attend the event as a spectator and cannot participate in any team activities during the event. AP course grades are not an exception.
6. I will seek tutoring and will attend any required study table sessions if my grades are low enough to keep me from traveling with the team.
7. I will pass the FIRST 2006 Game Test tests within two attempts, by getting a passing grade of 70 or above. If I don't pass, my "active member" status will be reviewed and I may be not allowed to travel with the team to FIRST events.
8. I agree to safely use all tools and equipment while working on any TechnoKats project. I respect the severity of a possible accident and agree that I may be dismissed from the team if I don't work safely. I also agree that I will not operate any tool or item of equipment unless I have been trained to use it safely.
9. I will maintain an acceptable level of productivity while at all team activities. I understand that if I am asked to leave an event, I will.
10. If I don't follow any of the above rules, I understand that I may be dismissed from the team immediately.
11. I will follow Cinergy/PSI property and posted TechnoKat Shop rules.

---

Student's Signature

---

Parent's Signature

---

Date



## TechnoKats Contacts

TechnoKats website: [www.technokats.org](http://www.technokats.org)

Andy Baker Email [andrew.r.baker@delphi.com](mailto:andrew.r.baker@delphi.com)

Chris Byam Email [cbyam@kokomo.k12.in.us](mailto:cbyam@kokomo.k12.in.us)

Kokomo Area Career Center  
Kokomo High School  
Delphi  
Ivy Tech State College

FIRST website: [www.usfirst.org](http://www.usfirst.org)  
Emails: [frcteams@usfirst.org](mailto:frcteams@usfirst.org)  
[frcops@usfirst.org](mailto:frcops@usfirst.org)

Discussion Forum: [www.chiefdelphi.com](http://www.chiefdelphi.com)

Parts: [www.smallparts.com](http://www.smallparts.com)  
[www.pic-design.com](http://www.pic-design.com)  
[www.mcmaster.com](http://www.mcmaster.com)  
[my.grainger.com](http://my.grainger.com)  
[www.parker.com/industrialprofile](http://www.parker.com/industrialprofile)  
[www.innovationfirst.com](http://www.innovationfirst.com)  
[www.mscdirect.com](http://www.mscdirect.com)  
[www.andymark.biz](http://www.andymark.biz)