



The Nuts and Bolts

FIRST Robotics Competition

Carmel High School -
Rolls-Royce -
TechHOUNDS

Team 868

Issue 2.1

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Team 868 is back to work! The 2008-2009 Season of the FIRST Robotics Competition has arrived, and the TechHOUNDS are eager during this pre-season of our eighth year of participation! We had an eventful summer and are looking forward to what's coming this winter, but there are still several goals to accomplish in the coming weeks!

Upcoming Events:

- FRC Kick-Off:
Jan. 3, 2009
- Open House:
Jan. 5, 2009
- End of Build Season:
Feb. 17, 2009
- Buckeye Regional:
Feb. 26–28, 2009
- Boilermaker Regional:
Mar. 19–21, 2009

What's FIRST?

The FIRST Robotics Competition is part of **FIRST** (For the Inspiration and Recognition of Science and Technology), an organization that, according to founder Dean Kamen, strives to “transform our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology heroes.” For more information, please visit www.usfirst.org.





The Pre-Season

The TechHOUNDS formed the new team for this year in early September—we now have approximately 60 members, of which **over 30 are first-year members!** Since then, former members and teachers have been training their teammates in several areas:



Tools — Being able to work in the machine shop is critical for almost everyone on every branch of the team, whether it be the Robot Operations, Construction, or Programming/Electrical group. With guidance from the teachers, all members of TechHOUNDS have received tool training, where they learn about each power tool and, most importantly, how to use them safely.

Animation — Our Animation team has created award-winning productions for several years. In fact, the animation from our 2007-2008 season won an **Autodesk Visualization Award** at the local Boilermaker Regional. However, only two veteran members from our ten-person team remain for this year! Thankfully, several new candidates are interested in the process of brainstorming, modeling, and rendering, and these new members have been practicing their animation skills by making a **Safety Animation**. This is a pre-season animation prompted by FIRST to emphasize the importance of safety. These animations are presented during Regional and Championship competitions. Once this project is completed, it will be featured, along with brainstorming sketches and documentation of the entire process, on the TechHOUNDS website, www.techhounds.com. Also check out the specifications by FIRST here: <http://usfirst.org/community/frc/content.aspx?id=10938!>

Construction — The Construction team has been working on many goals to free up time during the build season. Currently, they are designing our pit—the 10 foot by 10 foot area where we modify our robot between matches during each competition. It is extremely important for this area to be efficient, clean, and safe, yet pleasing to the eye. This is also where we highlight our sponsors and showcase what we accomplished during the build season. With this done, the Construction team will be able to focus on creating a mock playing field on which our robot can practice in 2009.

Robot Operations, Programming/Electrical — The TechHOUNDS will be seeing a few changes this coming build season. Not only will we be receiving a new game, but FIRST is also implementing a new control system for all robots, causing the electrical/programming aspect to be a completely different experience this year. To prepare for this change, the Robot Operations team and the Programming/Electrical team have been refreshing themselves by dismantling old robots and reviewing the C++ programming language.



Website — Last year, the TechHOUNDS website experienced a major redesign, and it even received a **Website Excellence Award**. We will be continuing to update www.techhounds.com with new, exciting content so that we can enter it again for an award.

Renewing Partnerships...

As the TechHOUNDS are training in animation, construction, mechanics, and more, we haven't forgotten what sustains our team in the first place—your support! We cannot thank you enough for investing in a technology-driven future, and in an opportunity that allows all of our members to grow academically, technically, and in communication and teamwork ability. Whether it be with materials, engineers, chaperones, or much needed monetary support for travel, parts, etc., we'd greatly appreciate your continued partnership with the TechHOUNDS.

2008 Summer Activities

Even over the summer, the TechHOUNDS were quite busy with two major activities: a summer camp for grade school students and an off-season Robotics Competition called the Indiana Robotics Invitational.

FIRSTSTEP — The FIRSTSTEP Summer Camp program was created by the TechHOUNDS Robotics Team to lead younger students with interests in science and technology on their “first step” in learning more about these booming fields. For one week, we explored the world of robotics with first through eighth graders through several sessions, where kids learned to model structures on the computer with Legos, build Lego robots (with materials used with the FIRST Lego League Competition), build more advanced robots (with materials used with the FIRST Vex Challenge), and work to construct a toolbox using simple metal and power tools in our machine shop. This was an enjoyable week-long learning experience not only for the students, but the TechHOUNDS mentors as well.



Indiana Robotics Invitational — The TechHOUNDS also attended the biggest off-season event of the summer, where over seventy teams from all over the nation participated in a competition similar to a regional. We modified our 2008 robot drastically over the summer to run much faster around the field, and this helped us greatly — we ended up placing in the top half of the rankings, and were awarded the honor of **Best Lapper**.

We've Officially Registered!

The TechHOUNDS are now registered for the **Buckeye Regional** in Cleveland, Ohio, the **Boilermaker Regional** at Purdue University (meaning that we already owe \$15,000 in registration fees!). We also hope to travel to Atlanta, Georgia for the **International Championship**!

You are cordially invited...

to the TechHOUNDS Open House!

Early in January, the TechHOUNDS and thousands of teams worldwide will view the unveiling of the 2009 FRC game at Kick-Off. We are inviting parents, administrators, and all of our sponsors to Carmel High School on the first official day of our build season (January 5, 2009) for our own Kick-Off—to reveal the game and to allow you to take part in our brainstorming process!

TechHOUNDS Open House

January 5, 2009 at 6:00 pm

Carmel High School, Community Room and Industrial Tech Department
520 E. Main Street
Carmel, IN 46032
Enter through Door #9

Please RSVP and direct further questions to
George Giltner, Faculty Team Lead
at ggiltner@ccs.k12.in.us



A Special Thank You to...

All parents and supporters who have helped cater/chaperone recent TechHOUNDS events and are promoting a productive build season, along with our skilled teachers and mentors...

We sincerely appreciate all of your contributions and are looking forward to an exciting build season!



Contact the TechHOUNDS:

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For more sponsorship information, please contact
Mr. George Giltner or visit www.techhounds.com.

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