



The Nuts and Bolts

FIRST Robotics Competition

Carmel High School -
Delphi - Rolls-Royce -
TechHOUNDS

Team 868

Meet...



Team 868!

It's here! The build season of the *FIRST Robotics Competition (FRC)* has officially begun, and the TechHOUNDS are busier than ever. With so much already accomplished and weeks of terrific work ahead, Team 868 is on its way to an exciting seventh year of competition.



The *FRC* is part of *FIRST (For the Inspiration and Recognition of Science and Technology)*, an organization that 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.

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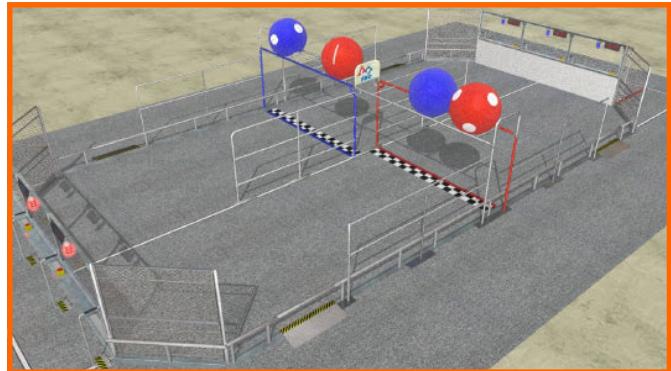
Upcoming Events:

- St. Louis Regional Competition:
Feb. 28–Mar. 1
- Purdue Regional Competition:
Mar. 13–Mar. 15
- Atlanta Championship Competition:
Apr. 17–Apr. 19



Introducing...OVERDRIVE!

On January 5, 2008, *FIRST* revealed its new Robotics challenge to all of this year's teams scattered around the world, and it did not fail to leave the minds of those competitors whirring with ideas. This year's game involves a large racing track with a center bridge called an **overpass**. The goal of the game is for each alliance to score as many points as possible during the **hybrid** period (where each team uses pre-programmed commands to operate the robot) and the **teleoperated** period (where the alliances have complete control of their robots). The teams do this by moving in a counter-clockwise direction along the track, passing **trackballs** under the overpass, or "hurdling" the trackballs over the overpass for extra points. To see the animation of this game, please visit http://robotics.nasa.gov/events/2008_frcwebcasts.php.



Team 868 has completed brainstorming of game strategy and robot design—we have also made a prototype of the robot itself!



Animation Team Update

Over the last week, the animation team has been very busy with preliminary planning and storyboarding. The theme given this year is “An Invention for Your Community.” We brainstormed many ideas and were finally able to narrow it down to just one. Our final storyline is still open to more concepts that can easily be added, but we are definite about the core ideas of our animation. It will feature an urban farm skyscraper that will have many positive attributes to the environment. Since then, we have started modeling on the computer and have made significant progress over the past days/weeks. The first models we have made are buildings that will be seen in the area surrounding the urban farm and some trees that will be shown throughout the animation as well as in a forest that plays into the storyline. We are also in the middle of finalizing the exterior of the main feature, the urban farm skyscraper. After this, we will be focusing mainly on the interior of this feature building which will certainly be a fun challenge...imagine a modern, indoor farm!



We are so excited to further our understanding of the complex and powerful software we use—we can only imagine what the final product will look like, and can't wait to see the progress over the next few weeks. To see past animations please visit <http://www.techhounds.com/index.php?page=about.html>.





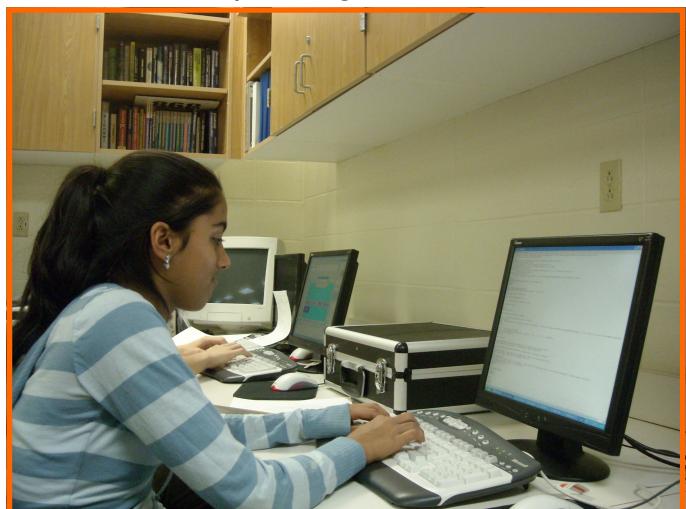
Robot Operations Team Update

It's been an exciting "FIRST" few weeks of the build season for the Robot Operations team! We have made steady progress on our drive train, a six-wheel, two-speed arrangement. Once the decision was made to be a "hurdler" robot (able to maneuver a trackball up and over the six-and-a-half-foot overpass), the team went to the drawing board to design an auxiliary mechanism to accomplish this most difficult task. A few drawings and several 2-by-4's later, we have a prototype machine, code name "the cannon," that shows at least some promise, along with several other prototypes in the making. Always optimistic, we hope to be hurling that forty-inch diameter, ten-pound ball over the overpass sometime soon!



Website Team Update

Clicking, designing, coding - the Website Team is off to a terrific start this build season. Although changes have not been made to the existing site (www.techhounds.com), we are tirelessly rebuilding a new website from scratch! While incorporating some Flash elements, we aim to maintain a clean, simple look, and we will ultimately submit our website for the Website Design Award, given at one of the regional competitions the TechHOUNDS will attend. So far, we have been working on the header/menus, frames, content, and overall design scheme. Hopefully, we will have a attractive, informative, and easy-to-navigate site up and running soon. With several weeks of work ahead, the TechHOUNDS Website Team is surely on "overdrive!"



Construction Team Update



On the construction side of TechHOUNDS, students have been working hard on numerous activities. Currently, members are building a practice field from scratch for the robot to practice on before competitions. This will enable the drive team to get accustomed to its game-play. Another aspect of each competition is the pit. Each team receives a pit area, which measures ten-by-ten feet for members to work on the robot, much like a pit in racing. Some students are planning the pit layout before we get to competitions so every inch of space is organized.

Also, other students are designing a new box that will carry batteries to the competition. This container will allow for easy transportation and usage of batteries that power the robot. One more item being manufactured is a toolbox that will carry materials needed to work on the robot during competitions. Being a student-run team, the members working in the construction wing of the TechHOUNDS have spent many hours working together as a team and gaining essential skills that they will need later in the life.



*"To me, TechHOUNDS is more than just a club; it is an opportunity to **change the lives of future generations**. By influencing students to reach for their goals, it will help them better prepare for their future."*

— Daniel Potash, Student Team Leader

*"TechHOUNDS has given me a **new world to explore** that I never would have known about otherwise."*

— Hannah Barrick, Public Relations Leader



A Special Thank You to...

**All TechHOUNDS parents and supporters
who provide dinner for team members
during the build season and our skilled
teachers and mentors!**

**We sincerely appreciate your consistent
contributions to a team that has such an
impact on its members.**



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