



THE NUTS AND BOLTS

Carmel High School—Rolls-Royce

www.techhounds.com

TECHHOUNDS TEAM 868

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TechHOUNDS Turn 10

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This season marks the tenth year that the TechHOUNDS team has competed in the FIRST Robotics Competition. After 10 years of robot-building, the TechHOUNDS have more than doubled in size from thirty members in 2001 to sixty-five members in 2011.

Mentor and Parent participation has increased enormously as well.



This year we have twenty-eight mentors that consistently work with our team. Of these, eleven are parents, four are teachers, five are team members turned mentors, and the remaining eight are individuals that have an interest in engineering, science, and assisting our team.

UPCOMING EVENTS

End of Build Season
February 22, 2011

Milwaukee Regional
March 10-12, 2011

Boilermaker Regional
March 17-19, 2011

St. Louis Championship
April 28-30, 2011



Over this ten year time span, our team developed robots that are able to perform various tasks such as: kick soccer balls, stack small bins and hang inner-tubes. We have won numerous awards including the Purdue Regional Competition in 2009 and 2010.



We were the National Galileo Divisional Runner-Up in 2004. We also won the Indiana Robotics Invitational in 2005. We experienced many triumphs in the past ten years and we are looking forward to many more years of success.

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, visit www.usfirst.org.

Division Updates



“All divisions are having to work **diligently** to make up for the loss of many **important** build hours experienced this season due to severe winter weather conditions.”
-Ryan Wilmes (Team Leader)



AUXILIARY CONSTRUCTION

“Construction has rebuilt the bottom of the **crate** that transports the robot to competitions. We also placed **feet** onto the scoring grid and collected **carpet** to use for our practice playing field. In the past week, we made many adjustments necessary to improve pit functionality.”

-Kyle Ellis (Division Leader)

WEBSITE



“Website finished updating the team member **biographies** and **pictures**. We are currently working on a new **menu** to replace the top frame of our website. Check out the team’s progress at www.techhounds.com.”

-Tom Keen (Division Leader)

ANIMATION



“We finalized the script and completed our **voice-overs**. We modeled all of the scene elements: backgrounds, puppets, **lighting**, iiko houses, etc. In the coming weeks. We will be animating the scenes and then **rendering** them.”
-Sarah Fields (Division Leader)

ROBOT OPERATIONS



“Robot Operations built the final drive train and finished the construction of the **elevator**. We completed two different mini-bot **prototypes** and finalized the collection device that we call the dragon’s mouth because of its design. We also finished building the **scoring device**.”

-Scott Blankenbaker (Division Leader)

PROGRAMMING/ELECTRICAL



“We have been working on **drive code** for the swerve drive, as well as **pneumatics** and line tracking autonomous code. We have also been experimenting with various kinds of **encoders** for controlling our wheels.”

-Alex Ryker (Division Leader)

A Special Thank You to our Mentors

Although TechHOUNDS is a student-led team, the **twenty-eight** mentors who aid us, are integral to the team's success. Many of the mentors assisting us in building the robot have a background in **science**, technology, and engineering. Some mentors are former members, some are parents of the students, and some are teachers, but they all work to ensure our **success**.

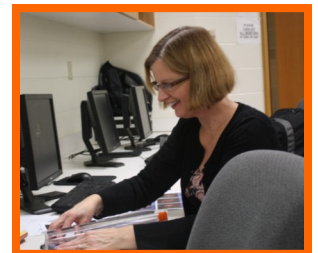


"I was a member of TechHOUNDS for **five** years as a student. TechHOUNDS gave me the **confidence** to become an engineer and I would not be where I am today without it. As a **former member** turned mentor, it is quite amazing to see some of the growth in the younger students. The kids I used to teach when I was in TechHOUNDS are now the ones leading the team."

-Charles Nepomuceno, 1st Year Mentor

"I am involved in TechHOUNDS to support my children's interest in **engineering**. I continue to be impressed with the level of **commitment** I see from the team to achieve a difficult task in such a **short time-frame**. I assist the team by helping coordinate their travel needs and travel to the competitions with the students making sure they have a safe trip. I **support** the team in anyway I can."

-Mrs. Wilmes, Mentor & Mother of Ryan and Adam Wilmes



"I had a lot of **students** in class last year that were in TechHOUNDS and they wanted me to check it out. I came and I had such a **great time**, that I didn't want to leave. I love to learn and the TechHOUNDS team members **teach** me new things everyday. I love it!"

-Mrs. Erli, Auxiliary Construction Mentor & Carmel High School Industrial Technology Teacher

"I am a Transmission Engineer at ACES Power Marketing. Scott Thompson (another **mentor**) got me interested in the TechHOUNDS team. The team is really interesting and the process is **hectic**, but it is similar to my normal work day. I enjoy working with the students because they are **inquisitive** and eager to learn."

-Mr. Grau, Programming/Electrical Mentor



"I first got involved in TechHOUNDS when my youngest son joined the team. TechHOUNDS offers an **amazing** learning experience for all the members of the team. Different divisions bring various ideas and skills to build a **successful** robot and it is great. I have seen the students grow from shy freshman to **confident** leaders during my experiences."

-Mr. Blankenbaker, Programming/Electrical Mentor

Erin Miller, a programming member, answered our tough questions.

Rookie Corner

Q: What inspired you to join TechHOUNDS?

A: I want to become an Aerospace Engineer, and joining TechHOUNDS seemed like a great opportunity for me to pursue my goals.

Q: What did you know about technology coming into TechHOUNDS?

A: I did not know much about programming but I have learned a lot since joining.

Q: How did you learn about TechHOUNDS?

A: I learned about it from my brother, Austin Miller, one of the programming leads.



CONTACT THE TECHHOUNDS

George Giltner, Faculty Team Leader
ggiltner@ccs.k12.in.us

Ryan Wilmes, Student Team Leader
rwwilmes@gmail.com

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