



NUTS AND BOLTS

TECHHOUNDS NEWSLETTER

Upcoming dates:

Feb 23rd:

Stop Build Day

March 11-13:

Tippecanoe District Event

March 11-19:

Warren District Event

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HOUND FOUND

Carmel High School's TechHOUNDS Robotics Team has a strong commitment to furthering the development of FIRST (For Inspiration and Recognition of Science and Technology) Robotics in Carmel and the central Indiana community. Through the *HoundFound* program, the TechHOUNDS have committed to providing any interested teacher in the central Indiana community with 1.) at least half funding necessary to start a FIRST LEGO League (FLL) of Junior FLL team and 2.) weekly mentoring for the FLL program (either in-person or by email).

Through this program, we hope to encourage elementary and middle school teachers to partner with our experienced student members and mentors, fostering a greater sense of excitement and appreciation for STEM (science, technology, engineering, and mathematics) across Indiana. By contributing to the development of committed STEM leaders, TechHOUNDS strives to effect positive change for the innovators of tomorrow.

For more information regarding FIRST and the FLL/Jr. FLL programs, please visit: <http://www.firstinspires.org/>

ROOKIE OF THE WEEK



CALEB SMITH

Sophomore in Programming

Inspiration: Mr. Blankenbaker

Why did you join

TechHOUNDS?

I've always enjoyed computers, and I thought it would be fun to try out.

How did you hear about TechHOUNDS?

I had some friends who were in it last year, and they just told me stories that I enjoyed a lot.

Do you have a personal goal for the year?

Calvin determines everything I do, so he's pretty much the brains. I'm just the code monkey.

STRONGHOLD 2016

FIRST Releases 2016 Stronghold Competition

On January 9th, 2016, the FIRST Robotics Competition released FRC Stronghold. Stronghold, a medieval-themed game created with Disney's Imagineers, has reconceptualized capture the flag for robots.



Teams compete in randomly selected alliances of three with the goal of capturing the opposing alliance's castle. To

do so, robots must successfully traverse defenses, place foam balls into the castle's goals, and surround the castle at the conclusion of the match. Teams can gain additional points for traversing four of the five defenses or hanging from the castle wall.

Megan Singer, electrical division member and sophomore, noted that this game differs significantly from previous years. "It's not



just that totes are being stacked on top of each other... there's more complexity to the game" Singer states, referring to the 2015 game Recycle Rush that involved less strategy and defense.

Over 3500 teams across the United States and world will take part in the competition this year, with the goal of advancing to and winning the International Championship held in St. Louis, MO. However, in order to advance, teams must perform at the highest level in either District or Regional Competitions. The TechHOUNDS will be competing at the Tippecanoe District, Walker Warren District, Indiana District Championship, and Queen City Regional in hopes of qualifying for the International Championship.

DIVISION UPDATES

ROBOT OPS

We spent the first week, brainstorming, prototyping and CADding. Week two, we spent some more time prototyping, and we started working on our drive train. Week 3 we finished up the drive train,



[added] prototypes on our robot, and are [currently] finishing up our final CAD.

PROGRAMMING

The biggest thing we've been able to accomplish without a robot [is working] on vision good. We've got a little LED ring, and we shine a really bright light off of those. [Using the reflection patten]



that to line it up so that it's right in our crosshairs. [This allows us to] aim accurately.

IT

Over the past three or four weeks we have been working on updating the website and making a whole new website redesign, hopefully by the end of next week we are going to actually start pouring



it over to the server. So by the end of the season we are going to have a brand new website to enjoy.

CONSTRUCTION

We have been working on the field, and it's been going great—we are almost done. We have been finishing the portcullis, and the drawbridge recently and we are updating the tower and making sure that it's correct.



ELECTRICAL

We've been dividing the work up to rookies and veteran members alike and we've been working really hard on a lot of LEDs and fixing the older robots. In addition, we've been working on the operator console and teaming up with programming to rewire and recode robots from previous years.



PR

Well so far we've gone through the process of completely rebranding or reimagining our team. We have changed all of our pit banners, team colors, most of our shirt designs are more high-quality and innovative. We have also been taking pictures and updating all communications involving Tech-HOUNDS.





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