THE NUTS AND BOLTS TechHOUNDS Newsletter

PRESEASON RECAP

On December 8, 2016 the TechHOUNDS wrapped up the last preseason meeting. TechHOUNDS preseason meetings are every Thursday after school, where team members get to teach and learn new things about the team and their divisions.

The team is split up into six divisions: Robot-Ops, Construction, Electrical, Programming, Information Technology, and Public Relations. Each division specializes in a certain area necessary to be successful in FRC (FIRST Robotics Competition) success.

Preseason gives TechHOUNDS members the chance to try any division that interests them, also giving time to teach tool training, safety precautions, and other skills necessary for each division. Sophomore and Robot-Ops member Victor Mai believes preseason is crucial.

"Preseason is a way we can train people, so when we go into the real thing we'll be prepared so we won't be delayed when we try to get things done, when the deadlines matter the most," Mai said.

This preseason Robot-Ops created a mini challenge: they were given a task and had to build a football shooter. Lead mentor and coach Zachary Bonewit reflects on their progress.

"Robot-Ops has gone through a successful preseason, many of them came through with zero experience and now they can put together a robot, with a chassis, drivetrain, and a shooter attached to it. In the amount of time they have been given they have accomplished quite a bit," Bonewit said. UPCOMINGEVENTS January 7: Kickoff

868

CONTENTS:	
PRESEASON RECAP	1
WOMEN IN TECH	2
GET TOKNOW OUR Team	2
DIVISION UPDATES	3

GET TOKNOW OUR TEAM



ROOKIE CORNER – ASHLEY NGYYEN

Why did you join TechHOUNDS? I joined TechHOUNDS because my cousin is on a robotics team at a different school and he said I might like this club. What are you aspirations for the team? I hope to learn, make some new friends who are also interested in this kind of stuff, and have a good experience. What have you liked about the team so far? So far I've liked the collaboration, and everyone in the club is really nice. How did you hear about TechHOUNDS? I heard about this since the beginning because it's one of the bigger clubs, I heard it on the announcements, and somebody that I know said I would like it.



MENTOR CORNER-MR. BLANKENBAKER

What do you do?

I work with the students in the programming group. Typically we go over the education, go over and write code for the robot. We also go over some of the science and principles, how they apply and make the robot move and how they control it.

Why did you become a mentor?

My son joined 8 years ago, so I came in and found I really enjoyed working on the projects. Working with the kids gives me a nice sense of satisfaction, and I'm feeling like I'm actually helping and contributing to the team. *How long have you been a mentor?* I've been a mentor for eight years. *How did you hear about techhounds?* It was during my oldest son's freshman orientation, where you can view all the clubs.

WOMEN IN TECHNOLOGY WORKSHOP

On November 12, 2016, the TechHOUNDS held the second annual Women in Technology Workshop. WTW encourages middle school girls to pursue careers in Science, Technology, Engineering, or Math. This year, WTW featured five different stations, each a unique part of the STEM field.

Guest speakers, including women from the engineering field, helped out the girls through their activities, using their own experience to offer guidance and insight into careers that interested them.

TechHOUNDS outreach lead Linnea Schultz and the WTW committee

started planning the event over the summer; each had their own reasons to support the event.

"I just felt really shut out when I first started, because I joined Robot- Ops my freshman year and I was the only girl in the division. I felt a little bit like 'why the heck are there not more girls in here.' So I really want to get the message out



to all girls all over the world that engineering is not just for guys. You can do anything that you want to do, it's totally possible. I really do believe that we need more strong women in engineering as those role-models, because we need new and different minds and opinions in engineering," Schultz said.

Senior and TechHOUNDS team lead Kate Hawkins was the Chemistry station leader.



"I think it's a good way for girls to get involved with STEM. There are a lot of different STEM activities their age that they can attend but there is often a lot of pressure when you are one of few girls. So it's just a nice way they can get involved," Hawkins said.

Mrs. Laura Erli, Carmel

High School engineering technology teacher and TechHOUNDS mentor, attended WTW for the first time, and was glad that more people are being encouraged to try engineering.

"I support any student of any age, race, or gender getting involved in engineering because it is a fun and useful skill," Erli said.

This event exposed young girls to the opportunities that STEM-related careers have to offer, and to empower them to join fields that are currently male dominated.

"It went super well, the volunteers were all great, we had a great turn out, around fifty girls actually showed up... When I actually talked to them they all seemed to really enjoy it. I think that we really got them interested, kind of broadened their horizons on what engineering is all about," Schultz said.

DIVISION UPDATES



CONSTRUCTION We have worked on the pit and the inside of the pit. We have made a 3D model of the battery box to make sure that everything will run smoothly before we actually build it. We rebuild our battery box every 2 years. The cart will be used at competitions and for work during build season.



ELECTRICAL We have worked a bit more on Flick, our robot from the 2013 competition season. We are currently working on updating its control system. We have finished teaching the newer members how to do electrical work.



ROBOT-OPS We have tool trained and taught the fundamentals of how to work on a robot. We are also working on a shooter bot that incorporates a drive train with a football shooter.



INFORMATION TECHNOLOGY We have worked on the scouting system and we have most things on the website completed. Everything on the website is beginning to come together; we are just making minor edits.



PUBLICRELATIONS We have worked on the newsletters. We are currently working on nametags and the WTW video. We plan on kickstarting our season with all of our new ideas for the t-shirts, lockersigns, and weekly videos.



PROGRAMMING We have made some progress with the Microsoft Hololens and we have continued teaching robot code. We have also continued working with electrical.