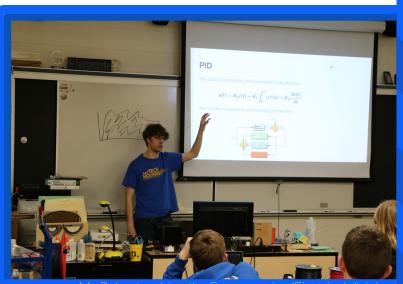
# THE NUTS AND BOLTS

### Woodie Flowers Award

Dr. Woodie Flowers, Distinguished Advisor of FIRST and Pappalardo Professor Emeritus of Mechanical Engineering at MIT, is a nationallyrecognized figure in the engineering world and an influential member of the FIRST community. Dr. Flowers co-founded FIRST alongside Dean Kamen in 1989, and was the first person to ever receive the Woodie Flowers Award in 1996.

The Woodie Flowers Award recognizes distinguished adult mentors who go above and beyond their duties in their FRC teams. At each FRC state championship, a Woodie Flowers Finalist Award is presented to one nominee, qualifying them for the Woodie Flowers Award.



Mr. Ryker teaching the Programming/Electrical division.

This award is presented at FIRST World Championships. The first presentation of the Woodie Flowers Finalist Award in the TechHOUNDS competition season will occur at the Indiana State Championship.

This year, TechHOUNDS nominated Programming and Electrical mentor Mr. Alex Ryker for the award. Mr. Ryker joined the team his freshman year of high school and was appointed Programming and Electrical Lead his junior and senior years. After graduating high school in 2011, Mr. Ryker enrolled at Purdue University as a Computer Science major. Even while pursuing his collegiate education, Mr. Ryker worked as a long-term substitute teacher in the Carmel High School IT Department—founding FRC 5010 "Tiger Dynasty" in the process. During the summer of 2012, Mr. Ryker began the first annual Programming Boot Camp, allowing TechHOUNDS members of every division to expand their programming knowledge. He later founded the Summer Leadership Bootcamp in 2015, training newly-elected leads in leadership and communication. The TechHOUNDS would like to thank Mr. Ryker for his incredibly dedicated support and inspiring future mentors.



## TECHHOUNDS TOP 8 NECESSITIES

## WATER BOTTLE

Hydration is key! Dehydration is not a joke. Make sure your bottle has your name on it. Also, make sure you actually fill the water bottle with water.

## **PHONE & CHARGER**

Your phone does NOT have an unlimited battery! A competition is an all-day event! You want to take photos, make memories, call your parents when the event is over, and send pictures to PR to use in the newsletters.

## MONEY

This makes a lot of cents. Concession stands are open at competitions with different types of food and drinks for you to enjoy while rooting for TechHOUNDS. Make sure you clean up your mess after you finish eating!

## **FRIENDS**

Share the experience of TechHOUNDS with others! Bring family, friends, or even your sponsor to a competition so they can see what you have been doing while at meetings.

## **DRAWSTRING BAG**

When a lot of people come to competitions, there isn't a lot of room for full sized backpacks. To gain more seating space, please bring your stuff to competitions in a drawstring bag that you can place at your feet. Make sure it has your name on it!

## **SPIRIT WEAR**

We work hard to produce new spirit wear every year, so show it off! Besides making you look good, it also informs the other teams who you support! You might want to bring multiple layers in case things get messy.

## **SAFETY GLASSES**

We work with tools that can blind you if not used correctly. Our recommedation is for you to go to your local hardware store and buy a pair for you to use. The competition staff will have a limited amount of goggles, so bring your own. Just remember, "Know Safety, No Pain."

### GRACIOUS PROFESSIONALISM

It's just like the Golden Rule. Have respect, not just for TechHOUNDS members, but for all teams at competitions. When you are at competitions don't "boo" at other teams. It makes you and TechHOUNDS look bad to other teams. For more about Gracious Professionalism, go to YouTube and search for FIRST Gracious Professionalism.



A weekly showcase of the members & mentors who make our team tick.

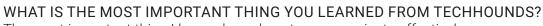
WHAT MADE YOU WANT TO JOIN TECHHOUNDS? I was interested in designing spirit wear and being involved in social media for a big group.

SO FAR, WHAT'S THE MOST INTERESTING THING YOU'VE LEARNED?

How to edit videos. I was initially only interested in taking the videos, not the editing process, but I now enjoy both getting footage and editing the weekly videos.

WHAT ARE YOU LOOKING FORWARD TO DOING? I am looking forward to spending more time with my friends on my team.

## 



The most important thing I learned was how to communicate effectively.

#### ANY WORDS OF ADVICE YOU HAVE FOR ROOKIES?

Stick to your commitments. Also, don't be afraid to make mistakes. If you do happen to make mistakes along the way, just accept failure, ask for help, and move on.



## WHAT HAVE YOU LEARNED FROM TECHHOUNDS THAT YOU WILL BE TAKING TO COLLEGE?

TechHOUNDS has taught me how to create and develop a good work ethic and how to manage my time wisely. Those are some things I'll be taking with me.



#### WHAT DOES BEING A MENTOR ENTAIL?

I guide design in the mechanical assembly and I am also occasionally consulted on electrical design.

#### WHAT IS YOUR FAVORITE PART ABOUT BEING A MENTOR?

I like all of build season! There are a lot of things happening with a lot of moving parts. Sometimes things move too quickly, but overall it's quite exciting. I'm glad it only lasts six weeks though.

#### WHAT IS YOUR PROFESSION?

I'm retired now. I spent my career as an electrical engineer, putting computers into airplanes, cars—that sort of thing.



# DIVISION UPDATES

This week in Robot Ops, we have continued to fabricate both robots, some of our outsourced parts have returned, and we are continuing to build the robot and get it ready for competition.



#### ROBOT OPERATIONS



PUBLIC RELATIONS

This week we have wrapped up two newsletters and four videos. Those videos are the Robot Ops, Programming/ Electrical, Chairmans', and the WTW Promo video. We also were able to put up all the locker signs and post quite a lot on our social media. We've begun work on name tags and updating our social media profiles.

This week in Construction we finished the pit floor cart and the practice field player station, and we made modifications to the robot tool cart. We have also made significant progress on the electrical cart and the robot bumpers.



CONSTRUCTION



PROGRAMMING / ELECTRICAL

This week in Programming/ Electrical we've been learning different things about PID controllers and how to apply them to autonomus programming. We also made major strides in our vision algorithm we will use to line up the robot with the rocket. We're also rewiring a former robot to prepare for when we have to wire up the new robot.

I spoke with the Kiwanis Club and 1150 Academy this week about the importance of FIRST Robotics and our team. We also finished our submissions for Dean's List, Woodie Flowers, and the Chairman's Award. Five weeks down, one week to go!



TEAM LEAD



#### INFORMATION TECHNOLOGY

This week, IT was finishing up the scouting system. We finished the data visualization which holds the scouting system data and displays it in a presentable format. We also finished up the frontend of the system.

## **THANK YOU TO OUR SPONSORS**



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