

INFINITE RECHARGESM





Clackamas Academy District Site Specific
Information February 13, 2020

DESTINATION:
**DEEP
SPACE**



Presented By





2020 DISTRICT SCHEDULE
PACIFIC NORTHWEST DISTRICT
CLACKAMAS ACADEMY EVENT

Competition Schedule

Thursday, February 27, 2020	
5:00PM-9:00PM	Pits Open
Friday, February 28, 2020	
8:00AM-10:30AM	Pits Open, Practice Matches, Inspections
10:30AM-11:00AM	Opening Ceremonies
11:00AM-1:00PM	Qualification Matches
1:00PM-2:00PM	Lunch
2:00PM-7:30PM	Qualification Matches
8:00PM*	Pits Close
Saturday, February 29, 2020	
8:00AM	Pits Open
9:00AM-9:30AM	Opening Ceremonies
9:30AM-11:30AM	Qualification Matches
11:30AM-12:00PM	Alliance Selections
12:00PM-1:00PM	Lunch
1:00PM-4:00PM	Playoff Matches
4:00PM-4:45PM	Awards/Closing Ceremony
5:15PM*	Pits Close

**Schedule subject to change. All times are estimated based on flow of rounds.
See Pit Administration table for updated times.*

Clackamas Academy

Is a Thursday, Friday, Saturday event

- Day 1 is Thursday
- Day 2 is Friday
- Day 3 is Saturday

To lessen confusion, the rest of this PowerPoint will talk about Day 1, Day 2 and Day 3

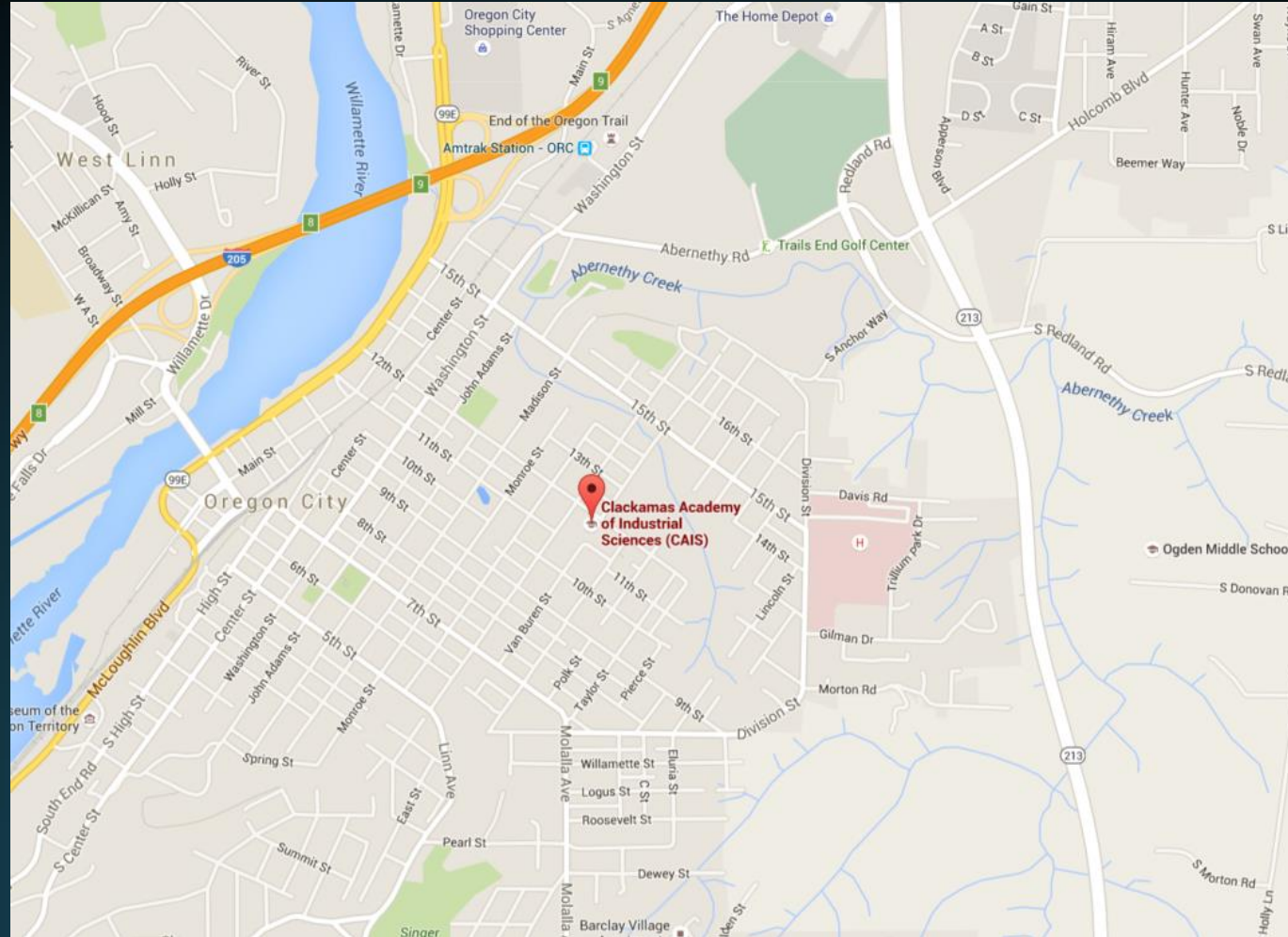
Overview of Presentation

- Event Specific Information
 - General Logistics: Parking/Busses/Food
 - Load in / Load Out
- Walk through of the event
 - Tour of the areas
 - Day 1: Inspection Day
 - Day 2: Qualifications
 - Day 3: Eliminations

Before you arrive!

- We need your main contact while onsite to visit <http://firstwa.org/FRCRSVP> and register
 - By default you will not receive a pit table from us. If you need us to provide you a table, you need to request one when you register on firstwa.org
 - Acknowledge you have 3" wheels
 - Student/Mentor count
 - Your mobile phone number
- Please do this by **Monday**, 2-17-20 (if you complete this form after 2-17-19 you may not receive a table)

Logistics: Where is the event?



Logistics: Arriving at Jackson Campus

Corner of 10th & Jackson, Oregon City, OR

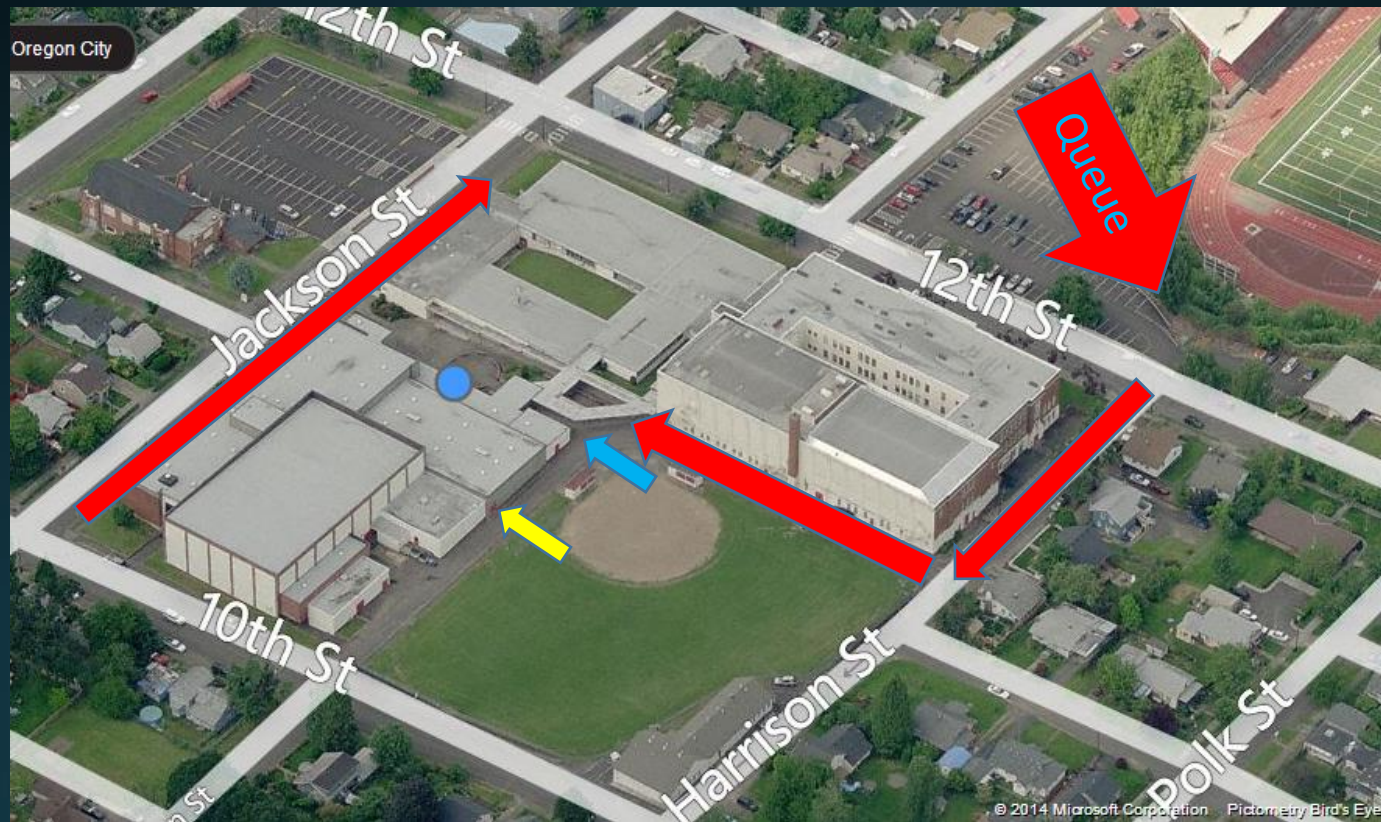


Load in Day 1

- Please don't arrive prior to 4:30 PM
- Pits won't open until 5:00 PM
- Teams will not be allowed in the building until 5:00 PM
- We are setting up the room from 3:00 PM – 5:00 PM

Directions for loading in

- Please don't arrive before 4:30 pm Day 1
- Pits won't open until 5pm
 - We are setting up the room from 3pm to 5pm



Arrival & Parking Day 2

- Please arrive after 8:00 am
- Please do not arrive before 8:00 am!
- Please do not show up early!
 - The school is open, please be respectful of staff and students at the school.
- The slide following this one will show you areas you may park

Logistics: Parking

- Parking across the street in two lots.
- Street parking is available in legal spots. We don't control street parking



Trailer Parking

- There is no trailer parking off Jackson
- Limited trailer parking in stadium lot off of 12th on first come-first served basis.
- Busses will need to find an alternate place to park.
- Remember, you are in a residential neighborhood

Logistics: Bus Drop off

- Use curb lane on Jackson (Corner of 10th & Jackson)
- There isn't a great spot to park a bus
- Your driver will have to make alternate arrangements

Logistics: Food

- Concessions will be open Day 2 and Day 3
 - Breakfast: Muffins, donuts & coffee
 - Rest of the Day - pizza by the slice, popcorn, chips, candy, granola bars, water, soda and more
- Local places to get food:
 - [Jimmy John's](#) 431 Beavercreek Rd, Oregon City, OR 97045 **please give 24 hr notice**
 - [Super Torta](#) 710 Washington St, Oregon City, OR 97045 **please give 24 hr notice**
 - [Domino's](#) 956 Molalla Ave, Oregon City, OR 97045 **pickup only!**
- Bringing Food?
 - There isn't a cafeteria. We do also have access to a small room near the gym for lunches.
 - Please, water only in the gym.
 - Bring tailgate food and enjoy a true sporting experience.
 - **Note: please do not plan to use power onsite to heat food or keep it hot. We are using all of the power in the building and your crock pots etc will get unplugged.**
 - **There is not space for teams to set up tables to eat at or dish up from inside. There is some space outside if you would like to set up an area for your students to come get food.**
 - There is seating outside – bring your own chairs
 - This is an open school, please be respectful
- Clean up after yourself

About the pit Power

- Pit power is limited. We are putting up to 6 teams on a single 20 amp circuit
 - Power generator is shut down overnight
 - Consider charging your batteries overnight at home / hotel
 - (Remember: 12 rounds may require several batteries)
 - No compressors or other large motors
 - Limit 400 watts per team, 2400 watts per 6 team Power Alliance
 - Lighting should go with low wattage
- High school gyms have very little power
 - You may NOT use any outlets in the gym
 - The game equipment uses all available power
 - We will remove and confiscate any equipment from gym outlets until after awards ceremony on Saturday. **You have been warned!**

Safety Glasses

- Teams are expected to provide safety glasses for their team members and spectators to use in the pits
- The safety glasses FIRST Washington brings are for the public, not for teams or spectators affiliated with teams
- No safety glasses will be given out Day 1. **Have them with you and accessible when you load in, you will not be allowed in the pits without them.**
- We will not hand out safety glasses to anyone wearing a team shirt
- We will be very diligent about collecting the safety glasses when spectators leave the pits

Schedule Overview: Whole Event

- Day 1: Team Arrival and Inspections
 - Driver & Coaches Meeting will be at 7:30 pm **Day 1**
- Day 2: Qualification Matches
- Day 3 AM: Qualification Matches
- Day 3 PM: Final Rounds / Team Departures



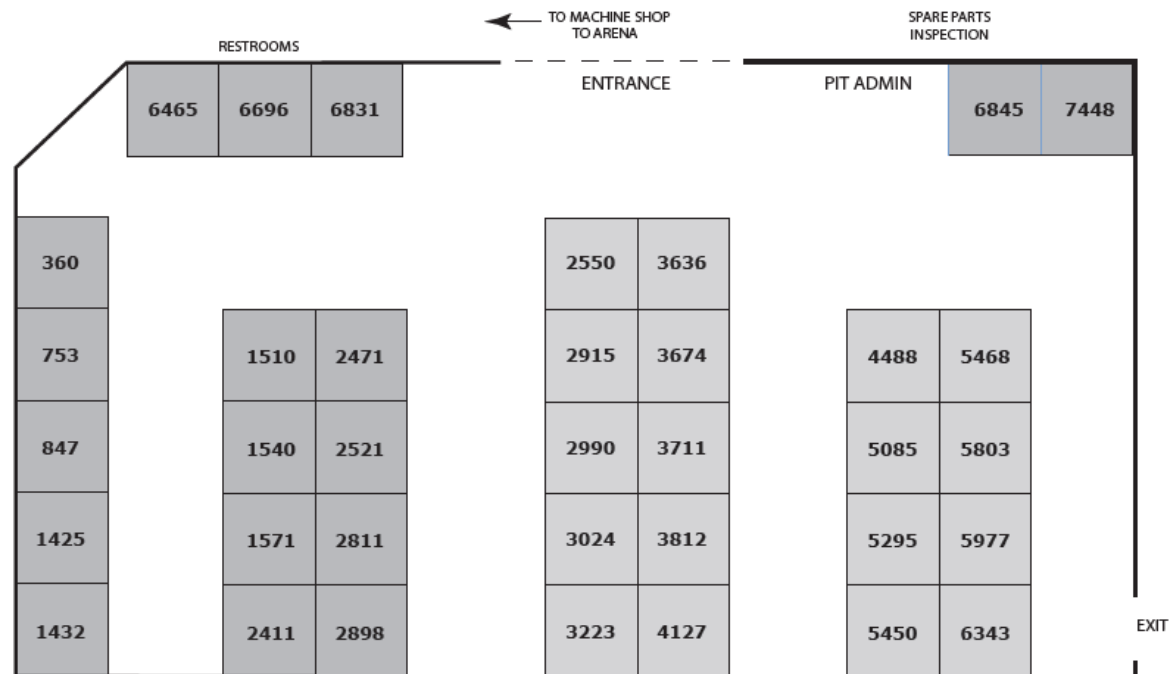
Load-In and Inspection

Day 1: 5pm – 9:00pm

- Safety glasses are mandatory. You will not be allowed into the area without them.
- Follow instructions from onsite staff.
- You may NOT park in the loading area. The driver MUST stay with the vehicle. Drop it and park in designated area. Staff your unload team appropriately to make this happen.
- Bring a cart! You will need a cart with at least 3” diameter wheels. Our cable protection bumps are 2” in height. We recommend 4” or larger wheels.
- Your FIRST and Only goal on Day 1 is passing inspection!



2020 PNW FIRST ROBOTICS CLACKAMAS ACADEMY OF INDUSTRIAL SCIENCE EVENT



Team #	Team Name	City	State	Team #	Team Name	City	State	Team #	Team Name	City	State
360	The Revolution	Tacoma	WA	2915	Pandamonium	Portland	OR	5468	ChaosTheory	Bend	OR
753	High Desert Droids	Bend	OR	2990	Hotwire	Turner	OR	5803	Apex Robotics	Seattle	WA
847	PHRED	Philomath	OR	3024	My Favorite Team	Ashland	OR	5977	Rosemary Anderson H S/POIC	Portland	OR
1425	Error Code Xero	Wilsonville	OR	3223	Robotics of Central Kitsap	Silverdale	WA	6343	Steel Ridge Robotics	Ridgefield	WA
1432	Metal Beavers	Portland	OR	3636	Generals	Portland	OR	6465	Mystic Biscuit	Bend	OR
1510	Wildcats	Beaverton	OR	3674	CloverBots	Battle Ground	WA	6696	Cardinal Dynamics	Corbett	OR
1540	Flaming Chickens	Portland	OR	3711	Iron Mustangs	Trout Lake	WA	6831	A-05 Annex	Hood River	OR
1571	CALibrate Robotics	Gresham	OR	3812	Bits & Bots	Longview	WA	6845	River Bots	Astoria	OR
2411	Rebel Alliance	Portland	OR	4127	LoggerBots	Vernonia	OR	7448	S.C. Robotics	Adair Village	OR
2471	Team Mean Machine	Camas	WA	4488	Shockwave	Hillsboro	OR				
2521	SERT	Eugene	OR	5085	LakerBots	Blachly	OR				
2550	Skynet	Oregon City	OR	5295	Aldermating Current	Shelton	WA				
2811	StormBots	Vancouver	WA	5450	SHREC	Saint Helens	OR				
2898	Flying Hedgehogs	Beaverton	OR								

Map reference only, not drawn to scale



Wheel requirements for carts, boxes, and anything rolling

- Our venues will have power cord covers (aka Yellow Jackets)
 - Our yellow jackets are 2" tall
- Your FRC robot cart **MUST** have > 3" diameter wheels
 - Wheels must be in good working order. No damaged or stuck wheels. Soft rubber. No hard plastic or steel tread wheels.
 - Maximum weight for your carts, tool boxes, etc will be 50 lbs per inch of wheel size (1 cart, 4 x 3" wheels, 600lbs max)
- Under no circumstances will we allow wheels less than 3" in diameter on ANY equipment / boxes / carts
 - Very high likelihood of damage to floors
 - You won't clear our cable management equipment
- All wheels must be non marking rubber or synthetic wheels
 - No steel wheels. No sharp wheels.

Day 1 is Inspection Day

- Your primary goal for Day 1 is to get your robot to pass inspection.
- This is a short and intense activity. Preparation is the key to making it a good day.
- Asking for help is a good thing. Providing another team help is the highest honor in **FIRST**. Don't be bashful.
- Teams with lower numbers have experience.

Load-in & Inspection Callouts

- **No Bag & Tag – but watch out for [R16]**
- **During Load-in, take everything to your pit!**
- **Other important Inspection changes this year:**
 - [I1] It's your team's robot – New rules around who can build MAJOR MECHANISMS
 - [I3] Multiple configurations can only weigh up to 150lbs – Any given configuration still must be ≤ 125 lbs
- **Be careful with:**
 - [R9] Specifically around light sources. Not required but highly suggested that any bright light source be:
 - Shrouded
 - Directed only at the target
 - Able to be turned off when not in use

Day 1 Pits Open: 5pm

- At exactly 5 PM we intend to open the pit area for everyone.
- You must wait for clearance to enter the building.
- You MUST have safety glasses on your face!
- We can not provide safety glasses for team members. You MUST bring your own.

Do less better

- These are smaller events.
- You are onsite for less time.
- Consider travelling light!
 - Less setup time
 - More room in your pits
 - Save the big pit displays for District Championship!

Day 1 Team Registration: 5PM

- Your lead mentor must visit the pit admin desk starting at 5PM.
- Bring required forms
 - Team Roster printed from TIMS with hand written additions if needed.
 - Consent forms for all team members (students and adults) who aren't in TIMS/STIMS **The expectation is that all of your students and mentors have registered and are on the printed roster. You should have very few printed consent forms.**

Who to bring Day 1

- You really want your drivers and core robot builders and mentors Day 1.
- Depending on your teams logistics, you might consider having a partial team Day 1 and the whole team Day's 2 & 3.
- Day 1 is NOT a good spectator day
 - It is ALL in the pits Day 1.

Veteran Teams

- Bring Spare Parts
- Please consider bringing unused sensors, motors, control units, and hardware for loan to other teams.

Day 1

Inspection Process: 5PM

- Inspection involves 4 steps
 - Size and weigh-in at the inspection station
 - Control system inspection at the CSA station
 - Physical robot inspection at your pit starting 5PM
 - Connection to the field controller at least once by Day 2 morning
 - Our goal is for you to be able to connect Day 1 night if you are ready.
- Inspectors are your friends! Inspectors are here to help get you on the field safely and fairly. They will help you pass inspection.

Starting the inspection process

- You may enter the weight / size line at any time after 5PM.
- After weight and size, stop at the CSA desk for the control software check.
- You may sign up at the Inspection desk for an in-pit inspection appointment starting at 5 PM. We invite you to sign up early.

Inspection Tips

- It is rare for a robot to pass inspection on the first attempt. It is an iterative process.
- PLEASE: Get inspected early, even if you are not ready. You might have an issue that takes time to fix.
- All teams must connect to field as part of inspection.
- You MUST pass inspection to earn qualifying points.

WPA Key Assignment

- Your robot radio (WPA Key) must be reprogrammed at each event you attend.
- This is required to connect & compete at the field.
- A kiosk (with instructions) is provided for you to program your radio.
 - The kiosk will be located at inspection or pit admin

Word to the Wise

- Day 1 is no longer the final build day. It is now pass inspection day!
- Do not be bashful about asking for help. We have all been there before.

End of Day 1

- The pits close at 9:00PM on Day 1.
- You **MUST BE OUT OF THE BUILDING** before 9:00PM. The building closes at 9:00PM.
- We dislike doing it, but we will come lead you out of the building starting at 8:55PM. No exceptions.

Practice Rounds: Day 2, 8:30 AM

- Practice matches are scheduled, and will run from 8:30 AM to 10:00 AM
- You have to pass inspection to run a practice match.
- It is very common for teams not to be ready for their scheduled match in the mornings. We will accept teams on a first come/first served basis who wish to take an unscheduled practice round. Check in with the lead Queue Manager to get on the list.
- Priority will always be given to teams scheduled and/or teams who have not been on the field at least once. Be gracious and professional if you get bumped for a higher priority team.

Connecting to the field: The Final Step

- If you run a practice match during Day 2 morning, the field computer will remember that as your last step of the inspection process.
- If you are unable to make a practice match, we are going to ask you to take your robot and control system out to the field for a quick 5 minute test to insure your system can connect to the field. Your robot will not be on the field, we will simply connect it to the field while sitting on your cart.
- THIS IS A MANDATORY STEP!
- Many simple issues are solved by doing this on Day 1 that would otherwise cause you problems when it really counts!
- Our goal is for you to connect to the field by 10 AM Friday

Machine Shop Open: Day 2

- We have a volunteer machine shop onsite to help you fabricate replacement parts.
- The shop has small mills, lathes, and various other tools.
- **ONLY AUTHORIZED MACHINE SHOP VOLUNTEERS MAY USE THESE TOOLS!**
- We have excellent volunteer machinists. However, there are limits to what they can do for your team.
- We have a TIG welder.
- The machine shop has request forms for your team. It will be located near the loading ramp on the arena floor.
- In general, the machine shop will NOT loan you tools.

Day 3: Load Out

- No parking in load out area.
- Load out during elimination rounds on Day 3 is fine

Quiet Room

- We don't currently have a host team for a quiet room at this event. If there is a team interested in hosting the quiet room (which means setting it up – we have a tote with some supplies – and making sure it is staffed with volunteers) the venue is happy to offer a space.
- To sign up to host a quiet room, fill out this form:
<https://app.smartsheet.com/b/form/ece90573716a40f08b4470b7a57f29d3>

Workshops

- Diversity, Equity & Inclusion Workshop Friday 10:00 am – 3:00 pm
 - Check with pit admin on Friday morning for room assignment

Commitment to Equity and Access



Building Your **FIRST** Community:

Diversity, Equity, and
Inclusion Tips for Adults.

Register at:
<http://firstwa.org/DEI-Workshops>

Workshop Dates:

Accesso Showare Center, Kent: January 26, 10 AM - 3 PM
Clackamas Academy, Oregon City: February 28, 10 AM - 3:30 PM
Glacier Peak HS, Snohomish: February 29, 10 AM - 3:30 PM
West Valley HS, Spokane: March 6, 10 AM - 3:30 PM
Bellingham HS, Bellingham: March 21, 10 AM - 3:30 PM
Auburn HS, Auburn: March 28, 10 AM - 3:30 PM

We highly encourage all coaches, mentors,
and volunteers from all programs, FLL Jr,
FLL, FTC, and FRC, to join us.

Here's what coaches/mentors and
volunteers are saying:

*"Loved the history and hands-on
conversations and group dynamics"*

*"This workshop is giving me ideas
on strategic recruiting and working
intentionally to recruitment of
minority/non traditional students"*

Exciting new technology during
match play this year!

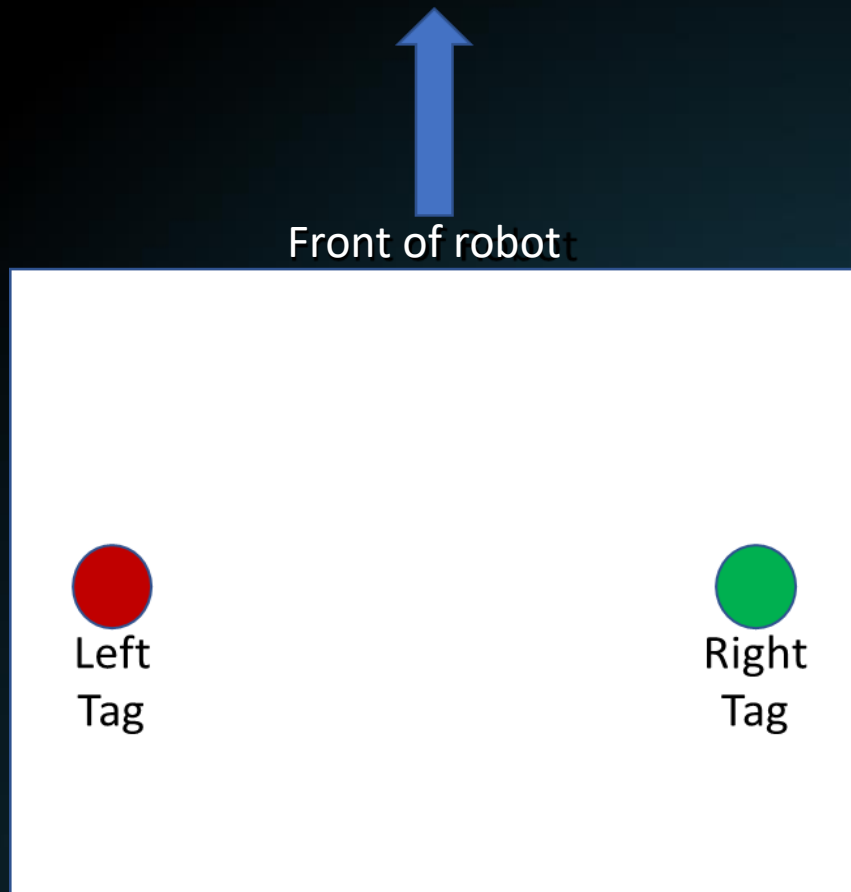
Zebra Technologies
&
FIRSTWA

General Information

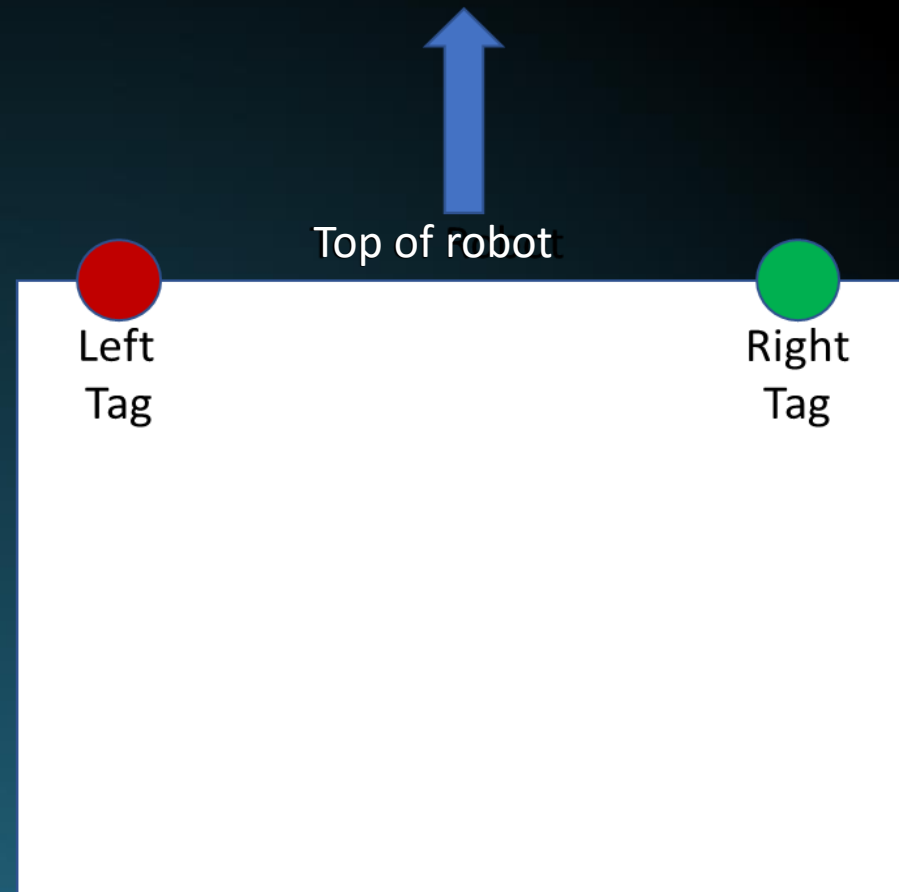
- Data collected 12 times per second
- Data collected for all robots every match of every event
- We can determine robot velocity, heading, acceleration, kinetic energy, and much more
- Trending of robots through the season

Attaching Tags

- Installed via double-sided tape and cable ties (provided by FIRSTWA)
- Tags must be placed high on the robot and not surrounded by any metal.
 - Think about where you need to install your radio, then look for that type of spot for these tags.
- Keep the tags lined up from left to right; draw an imaginary line connecting your two tags, and that line should be perpendicular to the direction of your robot's forward motion.



Top View



Back View

Questions

- FIRSTWA Discord

<https://discord.gg/7RJ5Vha>

- Chief Delphi

**Zebra MotionWorks™ for FRC 2020 Location
Announcement**

Curriculum used to enhance *FIRST* in schools

Coaches! Please share with *FIRST* Washington what curriculum (if any) you utilize to enhance *FIRST* in your school. Common ones include: Project Lead the Way (PTLW) Core Plus and Skills USA.

Many corporate partners and the State of Washington wants to know so please let us know. Oregon and Alaska teams...please share too!

This information will help us continue to build the case for additional resources for you all (space, funding, equipment, etc.)

Take a minute to fill out this form and tell us

<https://app.smartsheet.com/b/form/6970441f3f0648aca5a40c859e603520>

Thanks for viewing

- You can contact arime@firstwa.org with additional questions
- These slides will be posted on the Glacier Peak event page on firstwa.org