




# CRESCENDO<sup>SM</sup>

PRESENTED BY  HAAS  
Gene Haas Foundation

## Bridgewater State University District Event

Team Information Packet

Gear up, teams!

Let the curtain rise on the electrifying **First Annual 2024 New England FIRST BSU District Event**, where the stage is set for an unforgettable crescendo of innovation, collaboration, and robot-powered rock 'n' roll! Brace yourselves for a competition that will hit all the right notes, from the thrilling symphony of strategy to the heart-pumping drumbeat of competition. Are you ready to conduct your robots to victory in a game that's more than just a competition, it's a masterpiece in the making?

**Bridgewater State University and Bizarbots Robotics are honored to host your team at this year's competition, Crescendo, presented by The Gene Haas Foundation.** We are excited to witness your creativity, dedication, and robot-building prowess take center stage. We are thrilled to be hosting 36 teams from Massachusetts, Rhode Island, and New Hampshire to BSU on March 8-10, 2024.

Remember, the only limit is your imagination, so dream big, build bold, and prepare to join the chorus of champions at this year's BSU District Event. Let's make it a competition for the ages!

### Important Information:

- To ensure a smooth and successful event, please read the **ENTIRE packet** carefully. It contains vital information for all teams participating. Consider it your source of truth for everything you need to know.
- Should any questions arise, please don't hesitate to reach out to the contacts listed below. We're happy to assist you before, during, and after the event.

Let the games begin! We can't wait to see you there!

### Location

Bridgewater State University - Adrian Tinsley Center

325 Plymouth St, Bridgewater, MA 02325



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## General Instructions for Teams

The team information packet is intended as a supplement to the 2024 FIRST Robotics Competition Event Rules and Expectations Manual. Teams and their spectators should review the full [2024 FIRST Robotics Competition Event Rules and Expectations Manual](#) and the [2024 FIRST Robotics Competition Game and Season resources](#).

All final event decisions are made by NE FIRST, with Scott Heaton, Robotics & Logistics Director, as the point of contact.

## Visitors and Teams

We love visitors at our events! Please remind your families, school administrators, local government officials, and everyone else attending the event that they must wear closed-toe and closed-back shoes AND safety glasses when visiting the pits. Safety glasses are limited in supply; if you have extra glasses, please bring them for you and your visitors.

Children under the age of twelve (12) must be accompanied by an adult at all times! Inform them that “robots have the right of way” in our pits and to constantly be aware of their surroundings.

## Venue

### Directions

**Google Maps:** [Bridgewater State University, Adrian Tinsley Center, 325 Plymouth Street, Bridgewater, MA](#)

### By Car

#### From points East

- Follow Route 106 West to Route 104 West.
- For East Campus: turn left on to Hooper Street. Follow to the end and turn left on to Burrill Avenue. The Moakley Lot is past Moakley Center on the left.

#### From the North

- Take I-93 to Route 24 South, follow directions to Bridgewater Center.

#### From the West

- Follow the Massachusetts Turnpike (I-90) to I-495 South to Exit 19A (Route 24 North), follow directions to Bridgewater Center.

#### From Cape Cod

- Follow I-495 North to Exit 19A (Route 24 North), follow directions to Bridgewater Center.

#### From Providence/the South

- Follow I-95 North to I-495 South to Exit 19A (Route 24 North), follow directions to Bridgewater Center.

### From Bridgewater Center

- Follow Route 24 to Exit 24 (Bridgewater/Raynham - Route 104).
- Follow Route 104 East to stop sign (approximately three miles).
- Turn left and approach rotary in Bridgewater Center.
- Stay on Route 104 for approximately one-half mile. Turn right on Tinsley Drive.

### By MBTA Commuter Rail

The **Bridgewater stop** of the MBTA Commuter Rail (Middleborough/Lakeville Line) is on the Bridgewater State University campus. Discounted MBTA semester passes are available. The commuter rail provides service between Middleboro and South Station with stops in Brockton, Randolph, Braintree, Quincy Center and at JFK/UMASS. The commuting time between Bridgewater and Boston is approximately 50 minutes.

### Parking

Parking for the BSU District event can be found at the Swenson, Hooper & Moakley lots depicted on the map below in gray. Cars may park in any of the gray denoted lots. Trailers and buses should park in the Swenson lot located next to the football field. Teams are advised to park trailers and buses in the back of the parking lot closest to the outer edges. Please respect the ability of others to park and park in the very rear of the lot.



## Load-In and Load-Out

LOAD IN: Friday 3/8 5pm

Please proceed to the loading area depicted on the map via Tinsley Drive, upon unload follow signs to parking. Trailers and Busses are only permitted to park in the rear of the Swensen Parking Lot.

Suggestion:

- Bring carts for team items too heavy to carry
- Have team members at the curb ready to quickly move all items into the building

*PIT SETUP: 5pm - 10pm*

- Pit Map will be provided to teams at check in
- Each team will be assigned a 10ft x 10ft pit If you wish to have your pit table removed, please notify Pit Admin at check in and a volunteer will remove it for your team.
- Review [FIRST Rules & Expectations](#)

*Robot Inspection: 5pm-10pm*

- [Inspection & Eligibility Rules](#)
- [2024 Inspection Checklist](#)

It is likely that field setup will be occurring concurrently with team load-in. Please stay in the pits or sit in the stands while the field is being constructed. It is possible that no practice matches will be available on Friday.

*Robot drop-off traffic:*

See map at right. A Bridgewater State University Police Officer will be on-site directing traffic. After unloading or loading equipment, proceed to the Swenson, Hooper, or Moakley lots to park.

Load-Out – Sunday 3/10

After alliance selection, the top 8 robots that were not picked will be asked to remain as backup robots. (see [section 10 6.3.1](#))

Other teams may start loading out immediately. Award ceremonies begin between playoffs and finals so please return to the stands in time for the ceremonies.

Team vehicles must queue in the driveway and will be directed to the unloading area by event staff.

During load out, vehicles may NOT be left unattended. The driveway is a fire lane and must be able to be cleared.





Cheer on your fellow teams! It is respectful for all teams to remain in attendance through playoff matches and the final awards ceremony.

## Venue Rules

If event staff deems something or someone to be unsafe or against BSU or FIRST standards, they will work with the person(s) to correct the situation. If the situation cannot be corrected, the item will be removed, or the person(s) will be asked to leave. Finally, please respect the event staff as we are attempting to run a smooth event and keep everyone safe. See FIRST General Rules: [Event Rules](#)

### PLEASE DO:

- Distribute team pins and similar promotional items for teams and spectators.
- Bring enough safety glasses for your team. Wear safety glasses at all times in the PIT and on/around the playing field. During the event you will not be allowed into the pit without safety glasses, even to retrieve safety glasses. Be sure all team members have their safety glasses with them when entering the venue!
- Review the FIRST Safety Manual to ensure that your team is using the correct safety practices in the pit and at the event: FIRST Robotics Competition Safety Manual.
- Hang your team banners on the mezzanine using non-marking tape or zipties. Be FRIENDLY and use Gracious Professionalism with other attendees while sharing the stands.
- Be sure that your team mascots can see clearly and have an escort at all times if wearing a costume, and that they respect the personal space and boundaries of spectators.

### PLEASE DON'T:

- Attempt to deliver or ship robots, pit setups, tools, and/or materials directly to the site. Everything must be carried in during load in.
- Sell any products such as food, hats, shirts, or any promotional products. Distribute any free food products, such as candy, water, soft drinks, fruit.
- Use noisy devices, such as floor stompers, whistles, and/or air horns. Invite or bring live bands to play in the audience. Play loud music in the Pit because it interferes with important announcements.
- Arrange for Internet access on the site. Use walkie-talkies as they interfere with the wireless radios used by event service providers as well as the district event volunteers.
- Wear open-toed or open-backed shoes in the Pits or on the playing field. This includes “clog” and “mule” style shoes, such as Crocs.

## Seating in the Arena

Ample bleacher style seating as well as standing room on the second floor jogging track is available for teams with great views of the competition field. Please do not try and save seats as it is not permitted per [Rule E801](#). Teams are encouraged to share seats with each other. Per Fire Marshal request, teams cannot store bulky items such as coats, coolers, backpacks, etc. in the bleachers. Store such items safely in your pit if you have room. Use of tripods or any other items that will block the view of others or create a safety hazard is prohibited.



## ON SITE MACHINE SHOP & TOOLS

Bridgewater State University in conjunction with Bizarbots Robotics Team 5494 have provided a machine shop behind the Tinsley Center and will be available for use by designated machine shop attendants.

Machines will only be operated by machine shop attendants, and only machine shop attendants are permitted in the machine shop. We hope everyone understands and respects this rule.

## Emergencies

### *IN CASE OF EMERGENCY:*

Notify personnel at Pit Admin or the Scorekeeping table of the emergency. They will notify emergency responders on duty at the event as well as the Event Coordinator.

We encourage teams to identify a meeting place away from the building (i.e. the team bus) where team members will meet if a building evacuation is necessary. The official emergency exit plan asks everyone to vacate the venue through the emergency exit doors, head north to the Swenson Field Lot.

## REPORTING A MEDICAL AND NON-MEDICAL INCIDENT

If anyone states that they feel threatened or uncomfortable because of verbal abuse, inappropriate contact, or other negative behaviors that are not in the spirit or event rules of FIRST, we ask that you complete an Incident Report to formally document the event. When Reporting a Concern to FIRST, please make sure to submit as many details about your concern as possible and all necessary contact information to allow a timely and thorough follow-up. Someone from FIRST will review reports and contact reporters, as appropriate/necessary, to set up time to discuss the issue. The FIRST reporting portal also allows for anonymous reports; however, reporting anonymously may impact the effectiveness of an investigation and prevent us from following up with the person reporting the concern or keep us from thoroughly addressing the issue.

FIRST has released the FIRST Reporting Portal to allow anyone to Report a Concern in one location. These concerns can range from the following three categories:

1. Youth Protection Concerns: The portal can be used to report multiple types of concerns including suspected abuse, bullying, harassment, discrimination, questionable behavior or comments by adult volunteers, conflicts among volunteers or issues that haven't been resolved by local leadership.
2. Medical Incidents: All physical injuries/illnesses, however, slight, that take place at a FIRST Official Event must be reported to FIRST Headquarters. Physical injuries/illnesses that take place during a Team's activities, not at an Official Event, need only be reported if the injury is related to FIRST game materials, FIRST game design, or FIRST rules. Names may be removed if privacy regulations require it.
3. Other: If you are unsure what type of concern you have, we encourage you to make a report under "Other" and we will ensure that your report gets to the appropriate department or person to be addressed. Paper copies of the reporting form will be available at Pit admin if needed. FIRST may be contacted at the below information for questions about the reporting process.



Additional contact information can be found below:

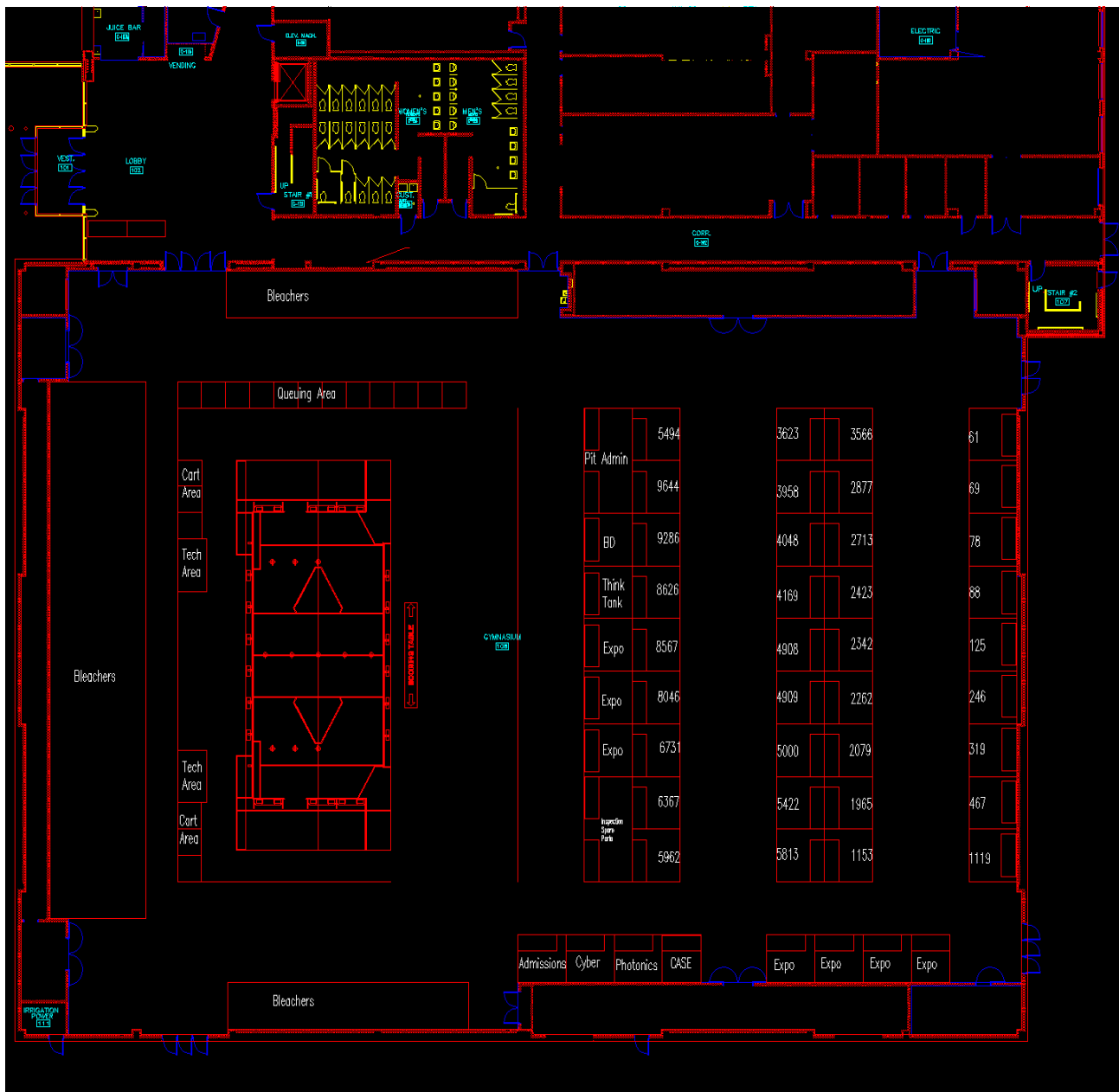
FIRST Youth Protection

[safety@firstinspires.org](mailto:safety@firstinspires.org)

Phone: (603) 206-2050

<http://www.firstinspires.org/youth-protection>

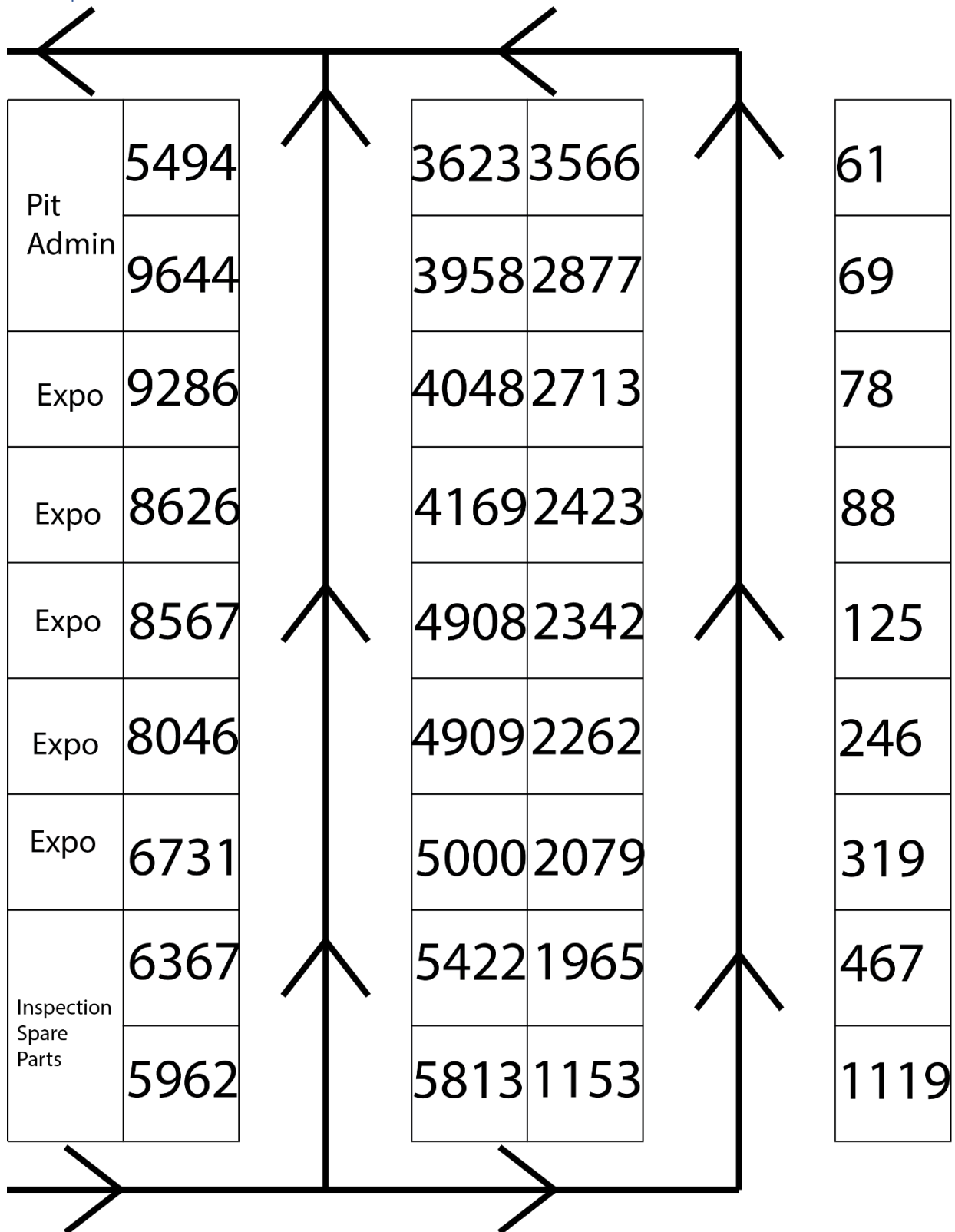
## Building Layout



## Pits

- A proposed pit map is below and subject to change. Teams will receive a final pit map when they register at the Pit Administration table on Day 0.
- Each team's pit will have an 8ft table and 1 power outlet. All pits are approximately 10ft X 10ft so plan accordingly.
- Due to safety and regulations, teams cannot build any structure that supports people or items for storage above the work area in their pit space.
- No structures should be higher than 10 feet above the floor and must safely support any signs or displays mounted to the structure. Please note that ceiling space may be limited to less than 10ft in some areas.
- As a special reminder, don't forget:
- A 25ft heavy duty extension cord and a power strip.
- A small cart to transport your heavy robot from the Pit to the playing field.
- Safety glasses for everyone on your team and your guests that will be visiting the pits.
- Review the FIRST Robotics Preparing for the Event list, which includes tips on what to bring: [District & Regional Events](#)
- Review the [FIRST Safety Manual](#) to ensure that your team is using the correct safety practices in the pit and at the event.

Pit Map





## Consent and Release Forms

Teams may not check in on Friday without a completed form for each team member attending the event, including adults traveling with the team. All team members must be registered through the online FIRST Dashboard. Consent form information can be found at the following link:

<https://firstinspires.org/resource-library/youth-team-member-consent-and-release-form>

Both mentors and students are required to fill out the forms electronically through the Dashboard. Any mentor or student attending as part of a team will need to be present on a printed Team Roster with a check box confirming that their Consent and Release Forms have been completed electronically. If anyone is missing a checkbox, paper copies must accompany the printed Roster.

Pit Admin will collect the printed Team Roster, lead mentor signature, and proof that teams have brought safety glasses for their team members during team check in prior to providing each team with their drive team buttons.

## AWARD INTERVIEW'S

Teams who have successfully submitted for the FIRST Impact Award and FIRST Dean's List Award will be randomly assigned to an interview time slot at each eligible event. Once the interview schedule has been posted, Pit Admin will make an announcement and teams can see the slot to which they are assigned.

Some teams may need to request to change time slots. In order to do so, the team must find another team who is willing to switch. Both teams will then go to Pit Admin and request the time change. Pit Admin is the only group who can approve the change. Pit Admin will alert the Judge Advisor or Judge Advisor Assistant.

Be sure to come prepared with your presentation materials. A reminder that there is a new process for FIRST Impact Award videos this year: [see details!](#) All teams interviewing for the FIRST Impact Award will receive feedback via the Awards Portal in the FIRST Dashboard after the event. For additional information visit the FIRST website: [Submitted Awards | FIRST](#).

### Judge Advisor

David Givens [david.givens4@gmail.com](mailto:david.givens4@gmail.com)

## Industry Expo

NE FIRST, local sponsors, and Bridgewater State University will have tables set up in the designated Industry Expo Areas. Please visit each table to learn more about opportunities for STEM majors and careers after high school! Bridgewater State University will also be offering tours of the campus from 10 AM – 3 PM on Saturday and Sunday for all that are interested.

## CONCESSIONS

Concessions will be available for teams and guests throughout the event. Over the course of the competition the concession stand, food truck, Dunkin donuts, and East Campus Commons dining hall will be open (see hours below). All items are a la cart except for the East Campus Commons which is all you care to eat, entrance is \$10 per person. Card and Cash will be accepted.

### Outside Food Policy

***Outside food is NOT permitted*** except for items related to dietary restrictions. In the interest of creating an inclusive environment and positive team experience, the outside food policy is not strictly enforced. No one will search your bag or ask you questions about outside food items.

\*Please DO NOT order food to be delivered to the school. No food will be allowed in the Gym/Field Area (except for water). Please communicate this to all team members attending the event. In addition, crock pots or other electronics appliances are NOT allowed in the school at any time due to the fire hazard they present.

### Hours

#### Friday:

General Concessions: 5-9pm

#### Saturday:

Dunkin Donuts: 8am – 12pm

General Concessions: 11am - 7pm

Food Truck: 11am – 3pm

Lunch East Campus Commons: 12pm - 2pm

#### Sunday:

Dunkin Donuts: 8am – 12pm

General Concessions: 11am - 7pm

Lunch East Campus Commons: 12pm - 2pm

Food Truck: 11am – 3pm

## SOCIAL MEDIA & WEBCAST

- Twitter: <https://twitter.com/nefirst>
- Facebook: <https://www.facebook.com/nefirstorg/>
- Instagram: <https://www.instagram.com/nefirst>
- Webcast: [https://www.twitch.tv/nefirst\\_blue](https://www.twitch.tv/nefirst_blue)
- Team List & Event Results: <https://frc-events.firstinspires.org/2024/MABRI>



## Contacts

### ***Do you have any last-minute questions?***

Email before you load in or find BSU Event Planning Committee members in gray NE FIRST vests during the competition.

### ***Are you running late?***

Reach out to the Committee Chair and let us know your status!

Event Chair:

Robert Monteith - [R1monteith@bridgew.edu](mailto:R1monteith@bridgew.edu)

Regional Director:

Scott Heaton - [sheaton@nefirst.org](mailto:sheaton@nefirst.org)

Please make sure you pass this information along to the appropriate people on your team!

If you have any questions, please email at [R1monteith@bridgew.edu](mailto:R1monteith@bridgew.edu)

Thank You,

Rob Monteith

BSU District Event Chair

Schedule

**BSU District Event Competition Schedule**

<b>Friday Mar 8, 2024</b>	
5:00PM-10:00PM	Pits Open, Load In, Inspections
<b>Saturday Mar 9, 2024</b>	
8:00AM-10:30AM	Pits Open, Load-in, Practice Rounds, Inspections
10:30AM-11:00AM	Opening Ceremonies
11:00AM-1:00PM	Qualification Matches
1:00PM-2:00PM	Lunch
2:00PM-7:00PM	Qualification Matches
8:00PM*	Pits Close
<b>Sunday Mar 10, 2024</b>	
9:00AM	Pits Open
10:00AM-10:15AM	Opening Ceremonies
10:15AM-11:30AM	Qualification Matches
11:30AM-12:00PM	Alliance Selections
12:00PM-1:00PM	Lunch
1:00PM-4:00PM	Playoff Matches & Awards Ceremony
6:00PM*	Pits Close

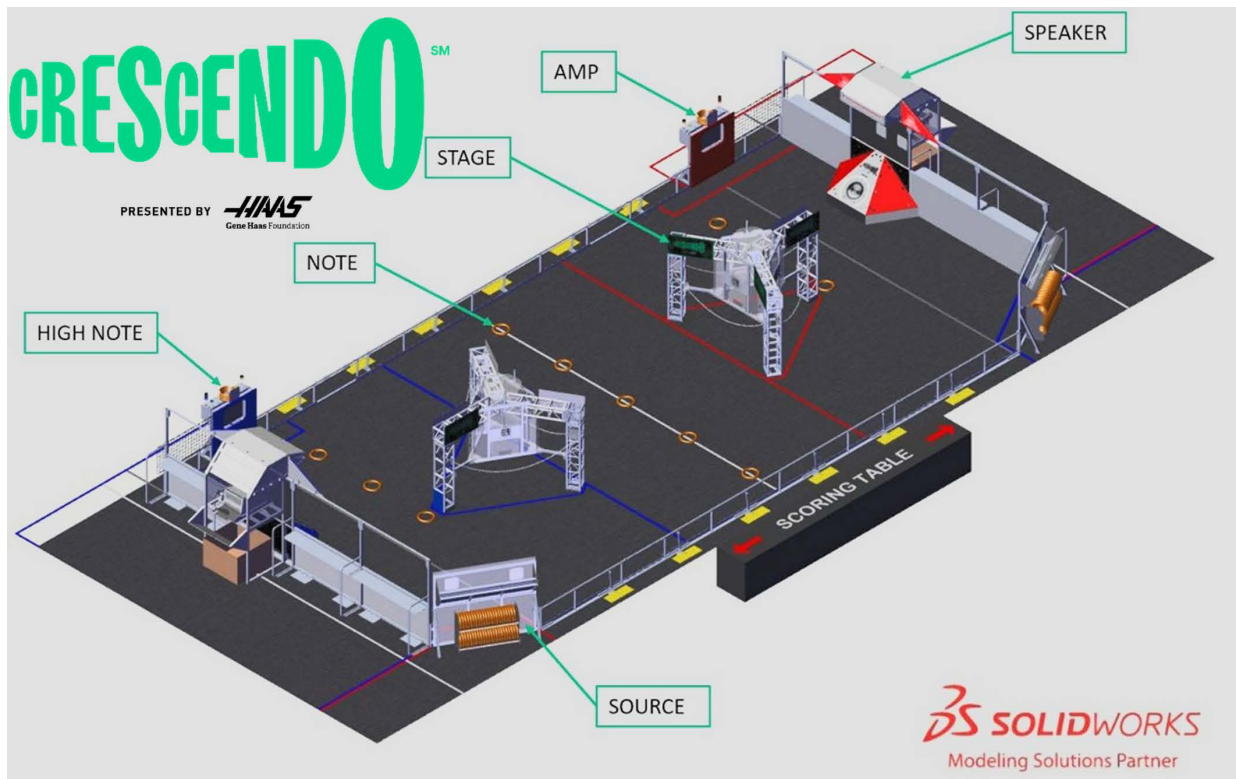
\*Schedule subject to change. All times are estimated based on flow of rounds. See Pit Administration table for updated times.

## 2024 Team List

Team Number	Team Nickname	City	State
<a href="#">61</a>	The Intimidators	Upton	MA
<a href="#">69</a>	HYPER	Quincy	MA
<a href="#">78</a>	AIR STRIKE	Newport	RI
<a href="#">88</a>	TJ <sup>2</sup>	Bridgewater	MA
<a href="#">125</a>	NUTRONS	Revere	MA
<a href="#">246</a>	Lobstah Bots	Boston	MA
<a href="#">319</a>	Big Bad Bob	Alton	NH
<a href="#">467</a>	Colonials	Shrewsbury	MA
<a href="#">1119</a>	Pup Cups	Walpole	MA
<a href="#">1153</a>	Timberwolves	Walpole	MA
<a href="#">1965</a>	Firebirds	Cambridge	MA
<a href="#">2079</a>	4H ALARM Robotics	Franklin	MA
<a href="#">2262</a>	Robo-Panthers	Holliston	MA
<a href="#">2342</a>	Team Phoenix	Nashua	NH
<a href="#">2423</a>	The KwarQs	Watertown	MA
<a href="#">2713</a>	Red Hawk Robotics	Melrose	MA
<a href="#">2877</a>	LigerBots	Auburndale	MA
<a href="#">3566</a>	Gone Fishin'	Southborough	MA
<a href="#">3623</a>	The Robomingos	Leominster	MA
<a href="#">3958</a>	Schrodinger's Cat	Boston	MA
<a href="#">4048</a>	Redshift	Westborough	MA
<a href="#">4169</a>	Warrior Robotics	Sudbury	MA
<a href="#">4908</a>	Duxbury Dragons	Duxbury	MA
<a href="#">4909</a>	Bionics	Billerica	MA
<a href="#">5000</a>	Hammerheads	Hingham	MA
<a href="#">5422</a>	Stormgears FRC	Westford	MA
<a href="#">5494</a>	Bizarbots Robotics	Holbrook	MA
<a href="#">5813</a>	Morpheus	Concord	NH
<a href="#">5962</a>	perSEVERE	Lowell	MA
<a href="#">6367</a>	The ElectroLights	Dorchester Center	MA
<a href="#">6731</a>	Record Robotics	Belmont	MA
<a href="#">8046</a>	LakerBots	Meredith	NH
<a href="#">8567</a>	Team Ultraviolet	Wellesley Hills	MA
<a href="#">8626</a>	Cyber Sailors	Scituate	MA
<a href="#">9286</a>	The Oaker Association	Coventry	RI
<a href="#">9644</a>	NEIA Robotics	Marlborough	MA



## 2024 Game Overview



In CRESCENDO<sup>SM</sup> presented by Haas, two competing alliances are invited to score Notes, amplify their Speaker, harmonize Onstage, and take the Spotlight before time runs out!

During the first 15 seconds of the match, robots are autonomous. Without guidance from their drivers, robots leave their starting zone, score pre-loaded Notes in their Speaker or Amp, and collect and score additional Notes.

During the remaining 2 minutes and 15 seconds, drivers control their robots. Robots collect Notes from human players at their Source and score them in their Amp and Speaker. Each time an alliance gets 2 notes in their Amp, the human player can amplify their Speaker for 10 seconds so that Notes are worth more points. Notes scored in either the Amp or the Speaker contribute to a threshold of 18 to achieve a Melody Bonus for team rankings.

A human player may choose to repurpose a Note scored in their Amp in cooperation with their opponent. If each alliance does this and hits their *Cooperation* button in the first 45 seconds after autonomous period, all teams in the match receive a *Cooperation* point (which influences their rank in the tournament), and the number of Notes needed for the Melody Bonus is reduced to 15.

As time runs out, robots race to get Onstage and deliver Notes to their traps. Harmonizing robots (robots sharing a chain) earn an added bonus. Robots earn even more points if a human player Spotlights robots by scoring a Note on that chain's Microphone.

The alliance that earns the most points wins the match!