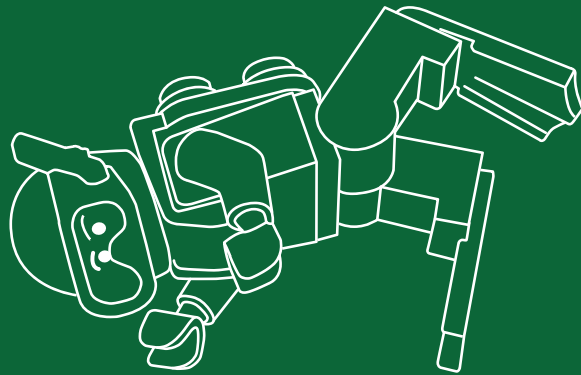




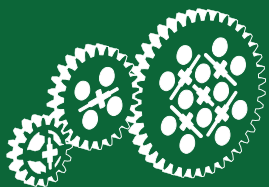
**FIRST  
LEGO  
LEAGUE**

**CHALLENGE**

# SUBMERGED



**GEARS/Concord Qualifying Tournament  
November 23, 2024**



**GEARS**



## **WELCOME!**

We are so excited that you are joining us for the GEARS/Concord FIRST LEGO League Qualifying Tournament at Concord Intermediate School!

We had a great time partnering with Concord Intermediate School to host this event for the last two years and simply can't wait to do it again this year. The school is a perfect layout for an FLL event. They offer an auxiliary gym for the teams to use as pits which is next to the main gym where the robot competition will be held. It's a fantastic set up for the participants.

This year we have 32 teams joining us at the event! This is a large event and we excited and honored to serve the teams in our community. Of the participating teams, 20 will earn the opportunity to compete at the Semi-State North Tournament on December 14<sup>th</sup> at Purdue University in Ft. Wayne. We look forward to announcing those accomplished teams at our Awards Ceremony.

The focus of the day is on the teams and the talented students. Since the kick-off on August 6, teams have been working hard and we want to celebrate their efforts. They have learned about our oceans, found a problem and created a solution. Then they built a custom robot and programmed it to solve missions on the Submerged game field. They did all of this while practicing their Core Values at their team meetings.

We prepared this packet of information to help guide you through your final preparations for the tournament. Enclosed you will find information about what to bring, what is going to happen in the judging rooms and when the parents should plan on attending to cheer on their children. If you have any additional questions, please don't hesitate to ask.

Good luck and high-fives!

Scott Chase  
Director, GEARS  
scott@gears.org.in

## **Before the Tournament**

### ***Register and Pay for Tournament***

Your team successfully reserved a spot at the GEARS/Concord FIRST LEGO League Qualifying Tournament through the FIRST Indiana Robotics application process. To complete your registration, you must submit your payment. If you have not already done so, please submit your \$75 team fee to FIRST Indiana Robotics.

### ***Fill Out Consent Forms***

All team members, students and coaches, must be officially registered and complete a Consent Form with FIRST before they will be allowed to compete. This needs to be done through the FIRST dashboard by each parent before arriving to the event. The coach should print out the roster and turn it in at the registration table. This will show that everyone has signed the consent forms.

### ***FIRST Dashboard***

You can look under your team in the “Team Contacts/Roster” section where you will be able to “Manage Contacts” in which you will send an invite via email to the parent to fill out their contact info for the student. This only needs to be done once per season, so get your parents to do it now if they have not already. Once all of your students are registered, “Printer Team Roster” from the dashboard and bring it with you to the registration table.

### ***Lunches***

Teams will not have time to leave campus to get lunches. Concord Schools will be offering a full concession stand. Prepare and plan accordingly for your team to keep their energy up.

## What to bring

Here is a checklist of things you might want to bring:

### *For Check In*

\_\_\_ “Team Roster” from the dashboard and any hard copy consent forms

### *For your Pit area*

\_\_\_ Extension cord and power strip

\_\_\_ Programming laptop or tablet

\_\_\_ Flash drive with programs (if applicable)

\_\_\_ Charging cord for robot

\_\_\_ Extra LEGO pieces for last second repairs or modifications to your robot

\_\_\_ Loose Field Mission models for practice table

\_\_\_ Snacks and/or lunch

\_\_\_ Banners, displays, giveaway prizes (optional)

### *For your Project Presentation*

\_\_\_ Any props

\_\_\_ If needed, laptop for presentation (boot up before entering room!)

### *For your Robot Design Judging*

\_\_\_ Robot and any attachments

\_\_\_ Pictures of robot and attachments for judges (optional)

\_\_\_ Copy of programming codes (optional)

### *For the Robot Game Competition*

\_\_\_ 1 robot

\_\_\_ Any attachments the team needs

\_\_\_ Remember that carts and totes to hold pieces are not allowed at the game tables

# Tournament

The tournament is being held at:

Concord Intermediate School  
Door 3 – Spectators Entrance for Sporting Events  
59197 County Road 13 South  
Elkhart, IN 46517

## ***Basic Schedule for the Day***

The day starts at 7:30 AM with registration. Teams will have about an hour to set up their pit area. Coaches will meet with the Tournament Director, Judge Advisor and Head Referee to discuss final details of the day at 8:00 AM. Judging sessions begin at 8:20 AM and conclude by 12:20 PM. NEW THIS YEAR, because of the large amount of participating teams, we will start the Robot Competition while judging is still happening. Opening Ceremonies will begin at 1:00 PM before the second round of the Robot Competition. Parents and other fans should arrive around 10:00 AM to support the team. Each team will compete 3 times in the robot competition between 10:00 AM and 4:15 PM. The day will wrap up with the Awards Ceremony around 4:30 PM.

## ***Schedule***

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**7:30 AM    Doors Open/Team Pits Open**

**8:00 AM    Coaches Meeting**

**8:20 AM    Judging Sessions Begin**

**8:30 AM    Robot Practice Tables Open**

**10:00 AM    Robot Round 1 Begins**

**1:00 PM    Opening Ceremony**

**1:20 PM    Robot Round 2 Begins**

**2:50 PM    Robot Round 3 Begins**

**4:15 PM    Dance Party and Pit Clean-up**

**4:30 PM    Awards and Closing Ceremony**

Once the robot rounds are completed, we ask each team to clean their pit area. We are very grateful that Concord Intermediate School is hosting the tournament. They are generous to wave all cleaning and custodial fees that are incurred by many other tournaments. We need to show our Gracious Professionalism by cleaning our areas. This includes removing all items that you brought with you, stacking chairs and placing trash in the provided bags.

### ***Team Setup & Pit Area***

The Pit Area will be in the gym adjacent to the competition gym. Each team will have an assigned table with a 3-prong electrical outlet and chairs. All personal items can be stored under your table, but please be aware that we are not responsible for lost or stolen items. Valuables should be kept on your person or stored in your vehicles. Please bring any extra power strips and extension cords your team will need. You are free to decorate your (limited) space however you like. Teams can bring signs, banners, costumes, candy, buttons or anything else they think will add excitement to their area. (Just make sure you share any treats you have with the judges and referees!!) We only ask that teams be careful not to encroach on your neighbors' space. We ask that only team members, coaches, and mentors be in the pit area for extended periods. Parents and guests are welcome to walk around and visit; but they should not spend long amounts of time at team tables.

### ***Coaches' Meeting***

There is a Coach's meeting held at 8:00 AM with the Tournament Director, Judge Advisor and Head Referee. We will have any last-minute reminders and notes about the day. We will also give you time to ask questions and go over any competition rules that you feel might need some clarification.

### ***Robot Inspections***

The Head Referee will be conducting Robot Inspections between 8:30 AM and 9:45 AM. Teams need to bring their robot, attachments, and launching jigs that they plan on using during the competition for inspection. This allows the Head Referee to review the robot and verify that everything is fair and legal. Finally, the team will show that the robot fits in the launch areas. Remember, the robot, attachments and Jigs *MUST* fit in the combination of both Launch Areas and under 12" tall for the team to compete. If everything fits in one Launch Area and under 12" tall, the team will be awarded a bonus for each round. We will be doing these inspections in the morning and will not be inspecting again before each table run. This will allow us to ensure that the Robot Rounds run more smoothly. Finally, if the team has any last second questions about a particular robot strategy or scoring situation, this is a good time to ask the Head Referee and get agreement. All robots must go through this inspection before they will be allowed to compete.

## Practice Tables

There will be 2 practice tables in the Pit area. Teams have a scheduled 7-minute time slot in the morning to use the practice table before the Robot Rounds start at 10:00 AM. After 10:20 AM, the practice tables will have sign-ups limited to 5 minutes. Teams may only hold one spot at a time. *The practice tables will not have any of the loose pieces on them.*

We ask that teams use our practice tables and do not bring their field and missions models from their practice facility. They should only bring the loose pieces that they will need to practice with.



## MORNING PRACTICES

time	Practice Table 1	Practice Table 2
8:30 AM	41519 - Concord Intermediate #1	41520 - Concord Intermediate #2
8:37 AM	60971 - Wawasee 4	61199 - Jimtown Intermediate-2
8:44 AM	62102 - Concord Intermediate #3	62908 - Concord Intermediate #4
8:51 AM	66154 - Galactic Turtles	66155 - Sound Patrol
8:58 AM	66458 - Banana Shark Builders	66459 - Lightning Chickens
9:05 AM	66460 - The Bots in Black	66532 - Spaghetti Sharks
9:12 AM	66877 - Red Spider Crabs	67538 - Goshen Gear Gurus
9:19 AM	68068 - Robocats Green	6285 - Rad Roboters
9:26 AM	4641 - MEMS Robotics Scuba Peeps	9338 - Wawasee 2
9:33 AM	7706 - Pirates of the Caribbean	11956 - Classic Car Lovers 911
9:40 AM	9339 - Wawasee 3	11959 - The MINIONS
9:47 AM	11961 - S.U.B.	12594 - Robocats Blue
9:54 AM	18067 - Holy LEGOs Batman	24735 - Trinity Robotics
10:01 AM	24842 - Patriotic Builders	26188 - JJHS Submarine Sandwiches
10:08 AM	30973 - Jimmie Sharks	32418 - Patriotic Krill
10:15 AM	32733 - Generation Ocean	37245 - Guardians of the LEGOs

### ***Calibrating Your Robot***

Teams can use the competition tables to calibrate their light sensors between 8:30 AM and 10:45 AM. Please ask the Head Referee or one of the Table Refs before calibrating. You will not be allowed to run any of your missions or touch any of the field models.

### ***Spectators***

Parents, families, and the general public are invited to join the festivities at 10:00 AM when we have the opening ceremonies. The event is free for spectators.

### ***Special Needs***

We will of course do our best to try to accommodate any special needs students that we can. Please let us know as soon as possible if there are any accommodations that we can try to provide. Be aware that a FIRST LEGO League tournament can be a loud experience. Some students may find it overwhelming. If you have any members that are sensitive to loud noises, be sure to have them bring hearing protection so that they can enjoy the day.

### ***Tips for Tournament Day***

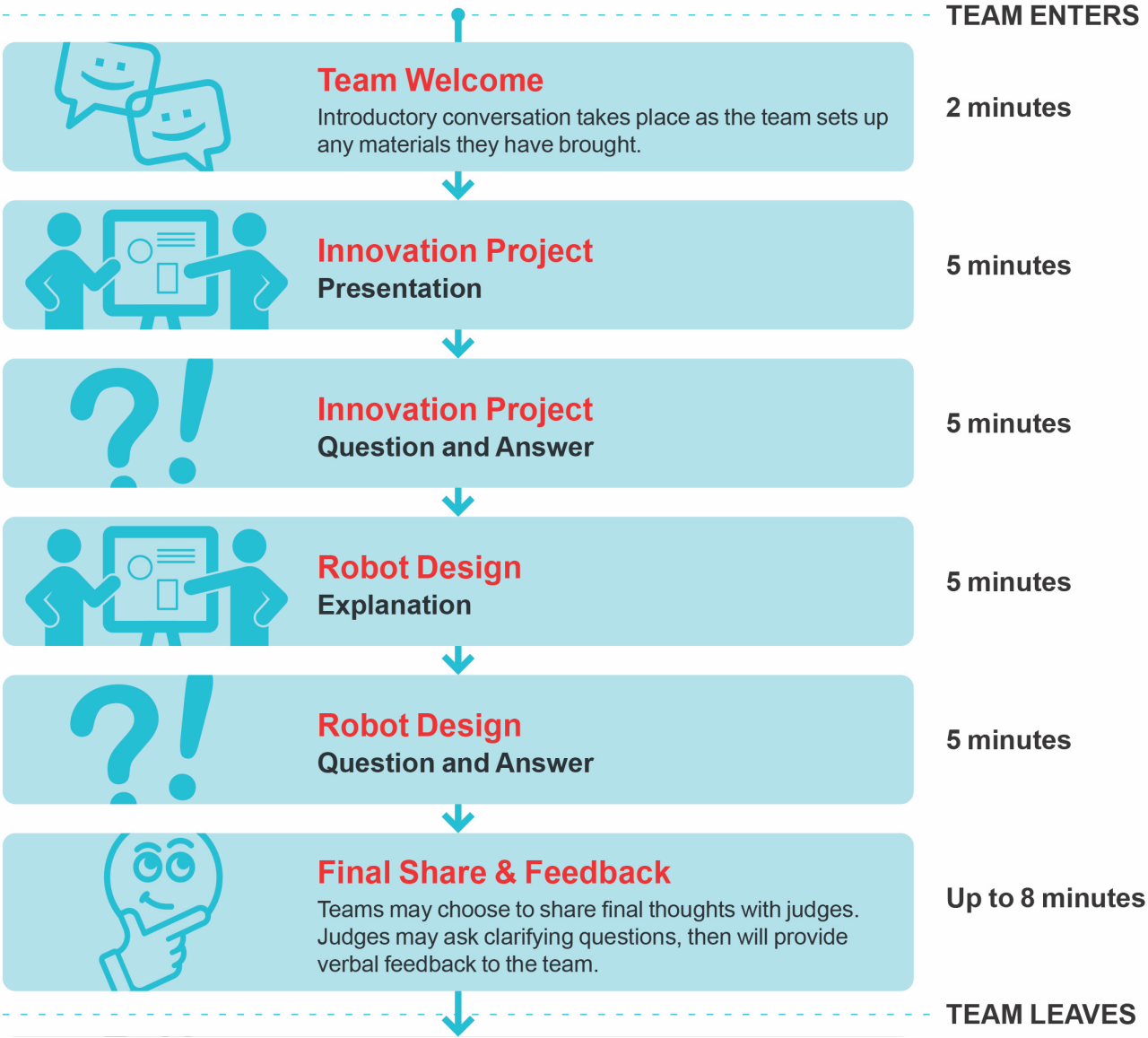
Tournament Day can be a long and stressful day. Between the tight schedule and the fact that the team performance is being judged in a competitive environment multiple times over a 9-hour period, you should expect to be worn out by the end of the day. Here are some tips to help the day go more smoothly:

- Everyone should get a good night's sleep the night before.
- Eat a good healthy breakfast the morning of the tournament.
- Have a lot of good healthy snacks on hand. Avoid those sweets; it is a long day and you don't want the kids to have a "sugar crash" just as they enter a judging room.
- Bring lots of water so that the team can stay hydrated.
- Remember to have fun!
- Make friends on other teams and cheer them on.
- Create a team cheer to yell and chant to root for your team!
- Visit with other teams and learn about their FIRST experience.



**Judging Format**

Judging will be a new experience for many students. Be assured that all judges have been trained and are volunteering their time to celebrate the season with your team. Here is the flowchart that is provided by FIRST and is followed at all events.



As you can see, your team will be in the judging room for 30 minutes talking about their entire FIRST LEGO League season. We recommend that you practice this judging format with your teams prior to the event. Help them get use to doing a presentation, followed by answering questions and so forth. As we all know, getting them to stand still for 30 minutes can be a struggle for some. Practicing this format before the event will help them be more prepared for it. We will use this format in this exact order so that no one is surprised in the judging rooms. Coaches are allowed in the judging room. Only two coaches can enter and they must be silent observers of the judging process and refrain from influencing the session in any way. Teams should not bring any handouts or engineering notebooks to give to the judges. The judges will not look at them after the students leave the judging room. Please help them prepare to explain their season without the need for leave-behinds.

### ***Innovation Project***

Judging rooms will have NO TECHNOLOGY. That means no computer/laptop or projector. If your presentation requires a laptop and projector or any other type of technology, you will need to supply them for the team. There is no internet access provided in the rooms, if you want to show the judges something on the internet you will need to provide your own internet access (e.g. a WiFi hotspot). There will be electricity available, but you may need an extension cord. The coaches may help the team bring these items into the room and set them up.

The Innovative Project presentation should be under 5 minutes. While your team will not be interrupted if they go beyond the 5 minutes, the judges will make note of it.

### ***Robot Design***

Judging rooms will NOT have a robot game field kit. The students are to spend 5 minutes sharing with the judges the highlights of the designing, building and programming developments from the season. Teams might be asked to share their programming code as well. It does not need to be printed, but it might be easier for your team to communicate with a printed copy versus a digital one. They will be expected to explain their strategy for accomplishing the missions and having a reliable robot.

### ***Core Values***

Core Values judging will be integrated with the Innovation Project and Robot Design questions. This will be new for our veteran teams. Review the rubrics closely and note that 5 items on each rubric have “gear” icons next to it. Those items count dually towards either Innovative Project or Robot Design and Core Values. Teams should be prepared for judges to ask questions about the team dynamic and how the practices went. Teams might be asked about their favorite moments or their greatest challenge. They will be asked about team roles and how the workload was distributed by the members. The best advice is to have the students be honest and as relaxed as possible. The judges just want to get to know them a little bit better.



### Judging Rooms and Times

	Judging Room A	Judging Room B	Judging Room C	Judging Room D	Judging Room E	Judging Room F
8:20 AM	4641 - MEMS Robotics Scuba Peeps	6285 - Rad Roboters	7706 - Pirates of the Caribbean	9338 - Wawasee 2	9339 - Wawasee 3	11956 - Classic Car Lovers 911
9:00 AM	11959 - The MINIONS	11961 - S.U.B.	12594 - Robocats Blue	18067 - Holy LEGOs Batman	24735 - Trinity Robotics	24842 - Patriotic Builders
9:40 AM	26188 - JJHS Submarine Sandwiches	30973 - Jimmie Sharks	32418 - Patriotic Krill	32733 - Generation Ocean	37245 - Guardians of the LEGOs	41519 - Concord Intermediate #1
10:20 AM	41520 - Concord Intermediate #2	60971 - Wawasee 4	61199 - Jimtown Intermediate-2	62102 - Concord Intermediate #3	62908 - Concord Intermediate #4	66154 - Galactic Turtles
11:00 AM	66155 - Sound Patrol	66458 - Banana Shark Builders	66459 - Lightning Chickens	66460 - The Bots in Black	66532 - Spaghetti Sharks	66877 - Red Spider Crabs
11:40 AM	67538 - Goshen Gear Gurus	68068 - Robocats Green				

## **Robot Game**

Teams should arrive at the “Queue Area” just outside the competition tables about 5 minutes before their scheduled competition time with their robot and attachments. Only robots and attachments that have been pre-approved by the Head Ref during Robot Inspection will be allowed into the competition area. **REMINDER:** Teams are not allowed to bring a cart, table, or box to use during the game play. They can use them to transport from the pit to the Home areas on the game field, but then the cart or box needs to be behind the coaches. Do not bring any of your own field models to the competition area. Team members and coaches (no parents or other guests) will be invited into the competition area.

Adults may not approach the competition table AT ANY TIME, not before, not during, and not after the game is played.

All team members can be at the table before the game starts to place items in the Home areas and to set-up for the first launch. They can choose to start from the red or the blue launch area. Team members must then divide into two groups and position one group at each side of the field (red and blue). These members cannot switch sides during the match. If possible, position two technicians at each Home area. All other team members must stand back. Teams may never have more than two technicians at a single Home area, but team members may swap places with technician(s) on their side at any time. Anyone not at the table should remain in the clearly marked “Cheer Areas” to cheer on their team. Additional details can be found on pages 16 & 17 of the Robot Game Manual, items 11-14.

Tournament Tables will be set with all the field model pieces. Team members should double check the setup before you start the round to point out anything that is not set how you think it should be. **TEAM MEMBERS SHOULD NOT MAKE ANY ADJUSTMENTS TO HOW THE FIELD IS SET UP THEMSELVES.** Perceived problems should be pointed out to the Table Ref who will make any necessary adjustments to the field setup. Once the game starts no adjustments to the table will be made. Once the game has been played, team members should not touch the field or the robot until instructed to do so by the Table Ref. The Table Ref will score the table and review the score sheet with the team members. Team members (**NOT COACHES**) may ask questions about the scoring and may challenge any aspect of the score with which they disagree. If you feel like you should get scoring points for something, this is your only chance to bring it up. If there is disagreement, the Head Ref will make the final decision.

**Total Robot Game time will be divided as follows:**

**Approach and setup: 1 minute**

**Game Play: 2.5 minutes**

**Scoring by the Table Ref: 1 minute**

**Table clearing: 1 minute**

## Participating Teams

<b>Team Number</b>	<b>Name</b>
4641	MEMS Robotics Scuba Peeps
6285	Rad Roboters
7706	Pirates of the Caribbean
9338	Wawasee 2
9339	Wawasee 3
11956	Classic Car Lovers 911
11959	The MINIONS
11961	S.U.B.
12594	Robocats Blue
18067	Holy LEGOs Batman
24735	Trinity Robotics
24842	Patriotic Builders
26188	JJHS Submarine Sandwiches
30973	Jimmie Sharks
32418	Patriotic Krill
32733	Generation Ocean
37245	Guardians of the LEGOs
41519	Concord Intermediate #1
41520	Concord Intermediate #2
60971	Wawasee 4
61199	Jimtown Intermediate-2
62102	Concord Intermediate #3
62908	Concord Intermediate #4
66154	Galactic Turtles
66155	Sound Patrol
66458	Banana Shark Builders
66459	Lightning Chickens
66460	The Bots in Black
66532	Spaghetti Sharks
66877	Red Spider Crabs
67538	Goshen Gear Gurus
68068	Robocats Green



## ROBOT PERFORMANCE - ROUND 1

	Table A	Table B	Table C	Table D
10:00 AM	4641 - MEMS Robotics Scuba Peeps	6285 - Rad Roboters		
10:08 AM			7706 - Pirates of the Caribbean	9338 - Wawasee 2
10:16 AM	66155 - Sound Patrol	66458 - Banana Shark Builders		
10:24 AM			66459 - Lightning Chickens	66460 - The Bots in Black
10:32 AM	66532 - Spaghetti Sharks	66877 - Red Spider Crabs		
10:40 AM			67538 - Goshen Gear Gurus	68068 - Robocats Green
10:48 AM	12594 - Robocats Blue	18067 - Holy LEGOs Batman		
10:56 AM			11959 - The MINIONS	11961 - S.U.B.
11:04 AM	9339 - Wawasee 3	11956 - Classic Car Lovers 911		
11:12 AM			24735 - Trinity Robotics	24842 - Patriotic Builders
11:20 AM	26188 - JJHS Submarine Sandwiches	30973 - Jimmie Sharks		
11:28 AM			32418 - Patriotic Krill	32733 - Generation Ocean
11:36 AM	37245 - Guardians of the LEGOs	41519 - Concord Intermediate #1		
11:44 AM			41520 - Concord Intermediate #2	60971 - Wawasee 4
11:53 AM	61199 - Jimtown Intermediate-2	62102 - Concord Intermediate #3		
12:00 PM			62908 - Concord Intermediate #4	66154 - Galactic Turtles



## ROBOT PERFORMANCE - ROUND 2

	Table A	Table B	Table C	Table D
1:20 PM	6285 - Rad Roboters	7706 - Pirates of the Caribbean		
1:25 PM			9338 - Wawasee 2	4641 - MEMS Robotics Scuba Peeps
1:30 PM	11956 - Classic Car Lovers 911	11959 - The MINIONS		
1:35 PM			11961 - S.U.B.	9339 - Wawasee 3
1:40 PM	18067 - Holy LEGOs Batman	24735 - Trinity Robotics		
1:45 PM			24842 - Patriotic Builders	12594 - Robocats Blue
1:50 PM	30973 - Jimmie Sharks	32418 - Patriotic Krill		
1:55 PM			32733 - Generation Ocean	26188 - JJHS Submarine Sandwiches
2:00 PM	41519 - Concord Intermediate #1	41520 - Concord Intermediate #2		
2:05 PM			60971 - Wawasee 4	37245 - Guardians of the LEGOs
2:10 PM	62102 - Concord Intermediate #3	62908 - Concord Intermediate #4		
2:15 PM			66154 - Galactic Turtles	61199 - Jimtown Intermediate-2
2:20 PM	66458 - Banana Shark Builders	66459 - Lightning Chickens		
2:25 PM			66460 - The Bots in Black	66155 - Sound Patrol
2:30 PM	66877 - Red Spider Crabs	67538 - Goshen Gear Gurus		
2:35 PM			68068 - Robocats Green	66532 - Spaghetti Sharks





### ROBOT PERFORMANCE - ROUND 3

	Table A	Table B	Table C	Table D
2:50 PM	7706 - Pirates of the Caribbean	4641 - MEMS Robotics Scuba Peeps		
2:55 PM			9339 - Wawasee 3	6285 - Rad Roboters
3:00 PM	11959 - The MINIONS	9338 - Wawasee 2		
3:05 PM			12594 - Robocats Blue	11956 - Classic Car Lovers 911
3:10 PM	24735 - Trinity Robotics	11961 - S.U.B.		
3:15 PM			26188 - JJHS Submarine Sandwiches	18067 - Holy LEGOs Batman
3:20 PM	32418 - Patriotic Krill	24842 - Patriotic Builders		
3:25 PM			37245 - Guardians of the LEGOs	30973 - Jimmie Sharks
3:30 PM	41520 - Concord Intermediate #2	32733 - Generation Ocean		
3:35 PM			61199 - Jimtown Intermediate-2	41519 - Concord Intermediate #1
3:40 PM	62908 - Concord Intermediate #4	60971 - Wawasee 4		
3:45 PM			66155 - Sound Patrol	62102 - Concord Intermediate #3
3:50 PM	66459 - Lightning Chickens	66154 - Galactic Turtles		
3:55 PM			66532 - Spaghetti Sharks	66458 - Banana Shark Builders
4:00 PM	68068 - Robocats Green	66460 - The Bots in Black		
4:05 PM			66877 - Red Spider Crabs	67538 - Goshen Gear Gurus



## Awards

### *Champion's Award*

This award recognizes a team that embodies the FIRST LEGO League experience, by fully embracing the Core Values while achieving excellence in the Innovation Project, Robot Design and Robot Performance. We will recognize one Finalist and one Champion.

### *Innovation Project Awards*

The judges look for teams whose quality research, innovative solutions, efforts in sharing their presentation best reflect an in-depth understanding of the various scientific disciplines and issues involved with oceans. We will recognize two Finalists and one Winner.

### *Robot Design Awards*

These awards recognize teams that impressed the judges in mechanical design, programming and the team's innovative strategies for completing the missions in the Robot Game. We will recognize two Finalists and one Winner.

### *Core Values Awards*

The judges look for teams that best demonstrate extraordinary enthusiasm, spirit, inspiration, exceptional partnership, and the utmost respect to its own teammates, and in its support and encouragement of fellow teams. We will recognize two Finalists and one Winner.

### *Robot Performance Awards*

These awards recognize the teams whose robot is able to score the most points pursuing challenge missions on the competition field. The top three positions will be recognized.

### *Team Advancement to the State Championship*

The GEARS/Concord Qualifying Tournament will send the top 20 teams to the Semi-State North Tournament to compete on December 14th, 2024 at the Purdue University Ft. Wayne. In order for a team to qualify, it must:

1. fulfill all requirements of an FLL team including: no more than 10 members, ages 9 through 14 (on January 1, 2024); and
2. participate in all parts of the tournament: Robot Game and all three judged areas.

Eligible teams are ranked by the judges based on their overall performance in all three of the judged components; **Innovation Project**, **Robot Design**, and **Core Values** as well as the **Robot Performance Score**. Based on this ranking, the top teams will be invited to the Semi-State North Event. If an invited team cannot make it to Semi-State, the next highest ranked team will be invited to attend.



# SPRING SERIES 2025

## 4 events

February 15  
March 15  
April 12  
May 10

## 1 location

202 Lincolnway W  
Osceola, IN 46516

GEARS is excited to provide our seventh season of the Spring Series FIRST LEGO League Challenge for teams in 2025. Once again, we will be hosting a series of four FLL Robot Game events. Each of these will be hosted at the new GEARS facility in Osceola.

Teams are encouraged to share, observe, advise, or simply visit with other teams at each event, so they can learn from each other in the true spirit of Coopertition (a FIRST Core Value). Since each competition is spread 4 weeks apart, teams have ample time to modify their robots or adjust their strategy in an effort to improve their performance at the next event.

You may organize your team in any way you wish. Teams who have already competed in an official FIRST LEGO League event during the Submerged season can either compete with the same teammates or they can re-organize their teams in any manner they wish. Teams are free to use the same robot used in other Submerged events, or compete with an entirely new design. Each team can choose their best strategy, but all FLL game rules still apply.

Thank you to our sponsors:

