



Western Edge Open 2025

Long Beach Convention Center



SUBMERGEDSM



Meet the Planning Committee



Cathy Schulz
Program Delivery Partner



Paul Kass
Program Delivery Partner



Sarah Rodriguez
Program Delivery Partner



Jared Hasen-Klein
Head Judge



Janelle Fine
Head Judge



JD Sessa
Head Judge



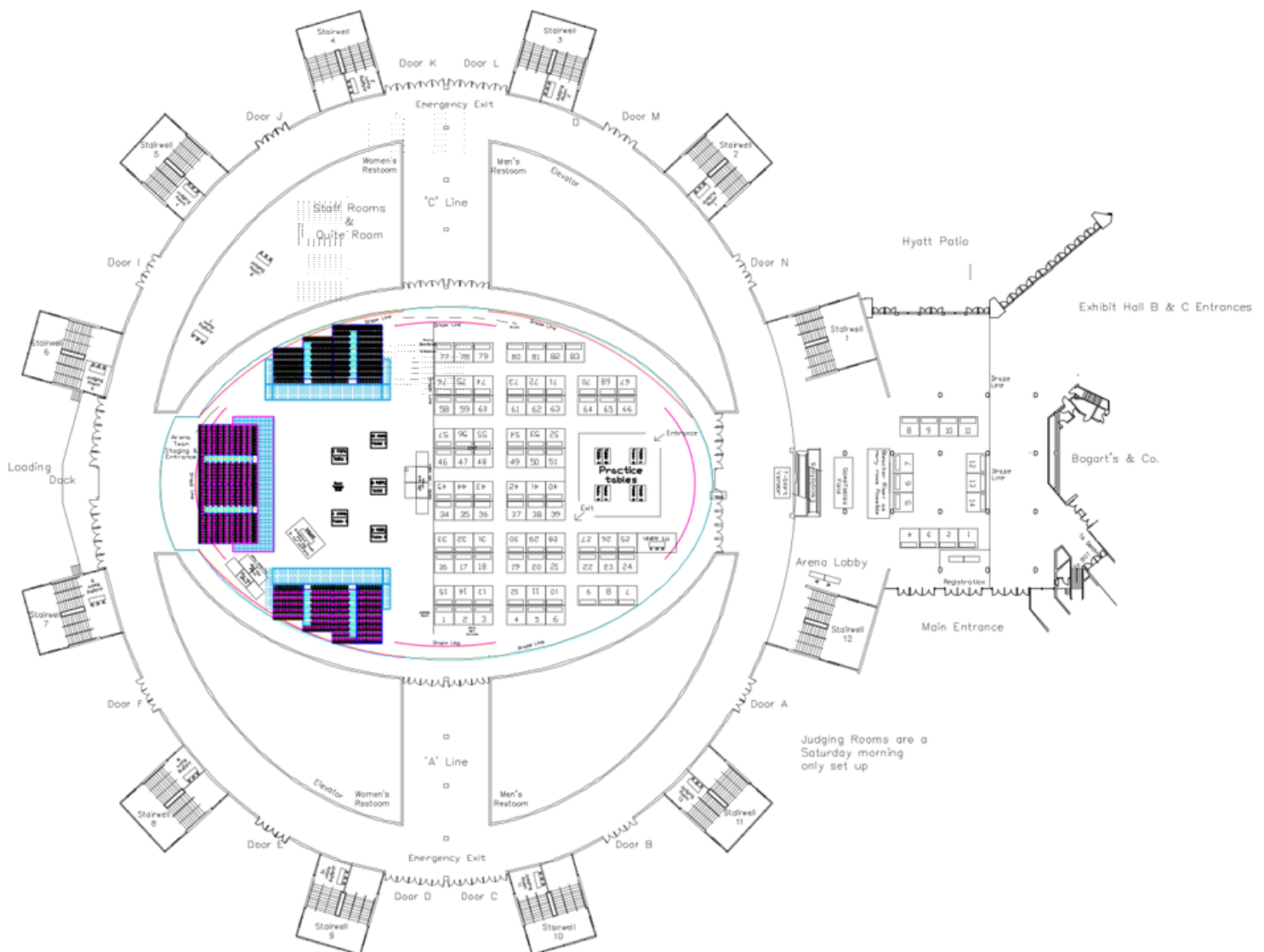
Mitch Boretz
Head Referee



Toni Xavier
Explore Extraordinaire

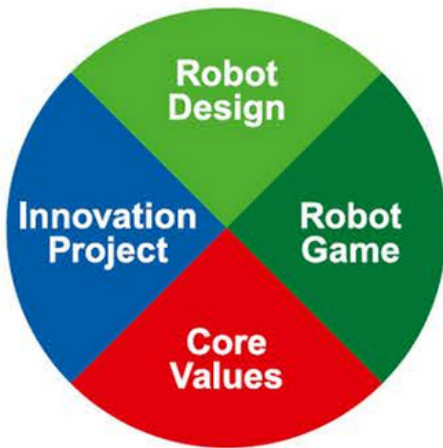


Diedre Mackenna
Volunteer Coordinator





Judging



Welcome to the Western Edge Open. Teams will work together on many different tasks in preparation for an incredible tournament experience.

Each of these four equally weighted parts of *FIRST* LEGO League Challenge accounts for 25% of a team's total performance.

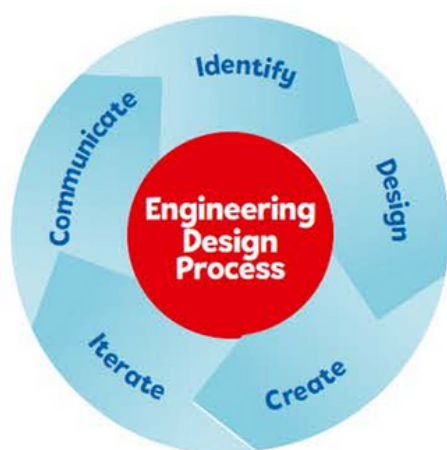
CORE VALUES

Core Values should be demonstrated throughout the event, teams should demonstrate the *FIRST* Core Values in everything they do, and will be evaluated during the Robot Game and Judging Session.





ROBOT DESIGN



During the season, teams:

- **Identify** a mission strategy
- **Design** a robot and programs and create an effective plan.
- **Create** a robot and coding solution.
- **Iterate**, test and improve their robot and program.
- **Communicate** their robot design process and everyone's contributions.

During the judging session teams present a short presentation on the robot design, programs and strategy.

INNOVATION PROJECT

As part of the SUBMERGED season, *FIRST* LEGO League Challenge teams are challenged to identify a problem related to the ocean and develop an innovative solution using STEM principles. This project aims to foster critical thinking, problem-solving, and collaboration skills while promoting a deeper understanding of the ocean and its challenges.

Students will collaborate on their ideas and must consider efficient design for their user, possible barriers to implementation, document the evaluation of their invention, and validate their design with professionals working in STEM



CHALLENGE JUDGING FLOWCHART WESTERN EDGE OPEN



Teams Welcome

Judges / teams introductions

1 Minutes



Innovation Project

Presentation

5 Minutes



Innovation Project

Question & Answer

5 Minutes



Robot Design

Presentation

5 Minutes



Robot Design

Question & Answer

5 Minutes



Core Values

Question & Answer

4 Minutes



ROBOT GAME

This season's game is about restoring coral reefs, releasing marine animals, and collecting samples from various ocean zones. Points are scored for releasing energy units from the models and delivering energy units to target destinations.

- 1) Each team will have 2 minutes to set up and inspect the table and models before the match begins, if a team finds an issue with the table or model they must bring it up to the referee at that time.
- 2) During the robot game teams have three 2.5-minute matches to complete as many missions as possible.
- 3) The team launches their robot from one of the two launch areas, and it moves around the field attempting to complete the missions in the order chosen by the team.
- 4) The robot is programmed to return to either home area at any time. The team can modify it while it is in a home area before launching again to try other missions.
- 5) The team starts the match with six precision tokens worth points. If needed, the robot can be brought back to home by hand, but the team will lose a token for the interruption.
- 6) During a match, only the robot can move objects from one home area to another. When a robot is interrupted, it can be returned to either area.
- 7) Mission requirements must be visible at the end of the match to score unless otherwise stated in the mission.
- 8) The team will have three matches, but only their highest score will count.
- 9) The team expresses Core Values through Gracious Professionalism.

Referees will assess the team's Gracious Professionalism at every match.



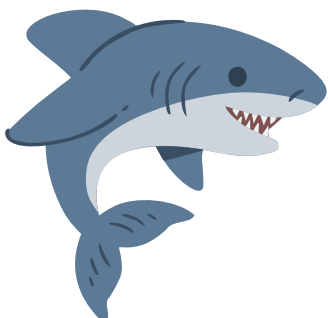


Explore Reviewing

Reviewing in *FIRST* LEGO League Explore is a fun and encouraging process where teams present what they have learned—including a team poster and a motorized LEGO model—to a panel of reviewers. Reviewers are looking for creativity, teamwork, and understanding from each team member of the challenge.

Here's what the process involves:

- **Team Poster:** Showcases the team's research, problem-solving journey, and how their model addresses the challenge.
- **Motorized LEGO Model:** A functional LEGO creation, using the LEGO® Education SPIKE™ Essential set, (1 hub only) to illustrate their solution.
- **Presentation:** Teams explain their ideas, design process, and use of LEGO elements to the judges.
- **Assessment:** Judges look for evidence of STEM learning, collaboration, and innovation.



EXPLORE REVIEWING WESTERN EDGE OPEN



Welcome

Reviewers / Team introductions

2 minutes



Poster and Model Presentation

Teams will share about their poster, model and what they learned this season

5 minutes
(or move on)



Poster and Model Presentation

Question & Answer

3 minutes



Core Values

Question & Answer

3 minutes



Last Minute Questions

Question & Answer

2 minutes



Explore Robot Game

The Explore Robot game is unique to California Southern Region and something we are excited to share with you.

- 1) During the robot game teams have three 2.5-minute matches to complete as many missions as possible.
- 2) The team launches their robot from the launch areas, and it moves around the field attempting to complete the missions in the order chosen by the team.
- 3) The robot is programmed to return to home area at any time. The team can modify it while it is in a home area before launching again to try other missions.
- 4) If needed, the robot can be brought back to home by hand.
- 5) If a team needs a mission reset they can ask a referee to reset the field.
- 6) The team will have three matches, but only their highest score will count.
- 7) The team expresses Core Values through Gracious Professionalism while at the game table.

Referees will assess the team's Gracious Professionalism at every match.



CONGRATULATIONS CHALLENGE TEAMS

Pit Number	Team Name	Region		Pit Number	Team Name	Region
1	Perpendicular Purple People Eaters	California		42	NX36T	Tennessee
2	Sjögurkorna (Sea cucumbers)	Sweden		43	Dragon Racers	New York
3	Sharon Tiger Techs	Pennsylvania		44	Les Brainstormeurs	France
4	KMS Constructors	Alaska		45	Sacred Heart Storm	Mississippi
5	Captioma Elementals	Spain		46	Alt + Tab	Georgia
6	Rockin' Robots	Missouri		47	Clover STEMs	West Virginia
7	Orcabotics	California		48	RoboticAlienz	Greece
8	SF-Cubmarines	Belgium		49	F.A.S.T. Robotics	Illinois
9	Underwater Coder Robots	Virginia/DC		50	GIPSY DANGER	Brazil
10	Operation T.A.C.	California		51	Technobots	Wisconsin
11	The Lego Krafters	Oregon		52	Saline Robohive	Michigan
12	Steampakt	Morocco		53	Oceanic Outlaws	Washington
13	The Flaming Cyber Tigers	Washington		54	Electric Eagles	Colorado
14	Eagle Tech Titans	Texas		55	Send Kelp!	Oklahoma
15	Bunki Suru	Chile		56	Team SycaGo	Israel
16	Fusion - Bumblebee	California		57	The Shady Bunch	Virginia/DC
17	The Honubots	Hawaii		58	MASTERMINDZ	Oregon
18	Techno Titans	Georgia		59	Shooting Stars	Minnesota
19	Cosmic Lego F.O.R.C.E.	Illinois		60	ROBOTIC RAPPER\$	Missouri
20	Huskies	Québec		61	Top Class	Republic of Korea
21	Bartlett Robo Bears Red	Michigan		62	Cyber Shark	California
22	Cyber Dragons	New Jersey		63	Innobots	Iowa
23	Automaton Piscis	Colorado		64	Better Blake Bots	Minnesota
24	iBots	California		65	Nano	Montana
25	HFG-RoboS	Germany		66	STEM Androids	California
26	Abell Robotics- SEAGLES	Texas		67	Bright Byte Kidz	Maryland
27	Gear Squad	New Mexico		68	Powell Paradoxs	Wyoming
28	Venabots	Mexico		69	Deep Sea Designers	New Mexico
29	Trident Seekers	Texas		70	Lego Legends	Wisconsin
30	RZKW	China		71	The Garage Engineers	California
31	Code Warriors	California		72	Sterling Galactic Gladiators	South Carolina
32	Grundstof	Denmark		73	Menlo Park Narleaotters	California
33	Hydrone	Ontario		74	H2O Bots	California
34	Robo-Divers	Nevada		75	Reef Rangers	Arizona
35	Lighthouse Lego League	Florida		76	Partners For Life	Arizona
36	Coders of the Caribbean	British Columbia		77	Emerson Encoders	Tennessee
37	SPORKlings	North Carolina		78	The Stripes	California
38	Salem Renegade Robots	Michigan		79	Brick Busters	Ohio
39	CA Phoenix Tech	Australia		80	Código Fenix	Mexico
40	Blue Bricks	South Dakota		81	Sharpshooters	South Africa



CONGRATULATIONS EXPLORE TEAMS

Pit #	Team Name	Region
1	SONIC DEEP DIVERS	California
2	Tinkerbits Jr.	California
3	Lego Raptors	California
4	Dolphin Squas	California
5	LegoWarriors!	California
6	WildRoz	California
7	Stone Ranch Robotech Magalodons	California
8	The Robolts	California
9	Hawai'i Starmies	Hawai'i
10	Mind Breakers	California
11	Marine Biologist Boys	California
12	Aquatic Robotics	California



ON THE SPOT AND ALLIANCE GAME

On the Spot is a cherished tradition of California Southern *FIRST* LEGO League, celebrated for the past 16 years. This special experience introduces a brand-new off season game – one that isn't about winning or losing, but rather emphasizes the learning journey. It offers students a meaningful opportunity to demonstrate the knowledge, creativity, and collaboration they've developed throughout the season.

In this challenge, teams receive a new game, new mission models and a fresh set of rules, then have a limited amount of time to work collaboratively with their alliance partners to strategize and complete the mission.

New in 2024, the Explore Alliance Game follows this same concept, giving younger students in the Explore division a chance to showcase what they've learned during their season through teamwork and hands-on problem solving.





EVENT SPONSORS



Founded in 1962, PECG represents 14,000 state-employed engineers and related professionals responsible for designing and inspecting California's infrastructure, improving air and water quality, and developing clean energy and green technology.

VIVIDHOSTING

Roots can be traced back to 2005, when Vivid-Hosting started in the gaming industry as high performance game server and network provider for other game server providers. As they continued to grow, they placed a high emphasis on developing secure, high throughput and extremely low latency networks. This made it easy for them to transition into developing security solutions needed online today.



The Gene Haas Foundation, founded by Gene Haas of Haas Automation, supports manufacturing education with a focus on CNC machining. It provides grants for scholarships, technical training, and student competitions. The foundation also proudly sponsors all *FIRST* programs, helping to inspire and prepare the next generation of innovators and engineers.



The Long Beach Convention & Visitors Bureau is the official organization for convention and tourism marketing for the city of Long Beach. Established in 1982, the LBCVB is a private non-profit organization funded by city hotel bed tax and membership contributions from over 400 area businesses and community organizations.



EVENT SUPPORT



REGIONAL SPONSORS

Qualcomm

Panasonic



FRIDAY SCHEDULE

Friday , May 30, 2025		
8:00 AM	Registration Opens	Pacific Ballroom Foyer
9:00 AM	Pits open to Teams	Pacific Ballroom & Foyer
10:00 AM	Opening Ceremonies in Arena for all teams	Pacific Ballroom
10:40 AM	Challenge - Practice Rounds Begin	Pacific Ballroom
11:10 AM	Challenge Coach - Mentor Judging Begins	Pacific Ballroom Side Rooms
12:45 PM	Lunch Break	
1:00 PM	Explore Reviewing Begins	Foyer
2:15 PM	Challenge - Round 1 Begins	Pacific Ballroom
4:45 PM	Pits Close to Teams	
5:30 PM	WEO Beach Dance Party	Pacific Ballroom

SATURDAY SCHEDULE

Saturday May 31, 2025		
8:00 AM	Challenge Pits Open to Teams	Pacific Ballroom
8:30 AM	Judging Begins	Pacific Ballroom Side Rooms
9:00 AM	Explore Pits open to Teams	Foyer
9:55 AM	Challenge Round 2 Begins	Pacific Ballroom
10:00 AM	Explore Round 1 Begins	Foyer
11:20 AM	Explore Round 2 Begins	Foyer
12:00 PM	Lunch Break	
12:35 PM	Explore Round 3 Begins	Foyer
1:00 PM	Challenge Round 3 Begins	Pacific Ballroom
1:20 PM	Explore Alliance Game Instructions	Foyer
1:50 PM	Explore Alliance Game Practice Begins	Foyer
3:15 PM	Challenge Pits Close to Teams	Pacific Ballroom
3:30 PM	Challenge On The Spot Instructions Given	Pacific Ballroom
4:15 PM	Challenge On The Spot Practice Begins	Hyatt & Westin Conference Rooms
5:00 PM	Explore Alliance Game Practice Ends	Foyer
10:30 PM	On The Spot Instructions Practice Ends	Hyatt & Westin Conference Rooms



SUNDAY SCHEDULE

Sunday June 1, 2025		
8:00 AM	Pits Open to Teams	Pacific Ballroom & Foyer
8:30 AM	Challenge On The Spot Round 1	Pacific Ballroom
9:00 AM	Explore Alliance Game Round 1 Begins	Foyer
10:20 AM	Explore Alliance Game Round 2 Begins	Foyer
10:30 AM	Challenge On The Spot Round 2	Pacific Ballroom
11:30 AM	Explore Pits Close to Teams	Foyer
12:00 PM	Lunch	
12:15 PM	Pits Close to Teams	Pacific Ballroom
1:00 PM	Explore Closing Ceremonies	Foyer
2:00 PM	Closing Ceremonies	Pacific Ballroom

FIRST SUPPORTING US

THANK YOU ALL FOR YOUR HELP MAKING ITEMS FOR OUR EVENT



FTC Team 6565 - Mechanical
Meatloaf with a Side of Pickles