25th LAWRENCE TECHNOLOGICAL UNIVERSITY ROBOFEST 2024

Kickoff III Meeting

January 13, 2024

This file can be found on the **2024 Main** page on the Robofest website

www.robofest.net robofest@ltu.edu 248-204-3568

Room J233 Taubman Complex, LTU
21000 West 10 Mile Road, Southfield, MI 48075, USA

Kickoff Meeting Agenda

- *Introductions*
- *Robofest Overview and Schedule*
- *General Competition Rules Highlights*
- *Competition Categories*
- *Open Competition Categories Highlights*
- *Exhibition Rules Highlights*
- *Q & A - Break*
- *Game Rules*
- *Q & A and Wrap Up*

ROBOFEST Lawrence Technological University

Robofest Staff

Office Staff:

- Elmer Santos, Robofest Director
- Shannan Palonis, Assistant Director
- Pam Sparks, Coordinator
- Steven Kryskalla, Database Web App Developer
- Marilyn Weisman, MCS Department Admin

LTU Student Assistants:

- Stephen Arnold
- Devson Butani
- Giovanni DeRose
- Robert Newberry
- Carly Palonis
- Nicholas Sparks

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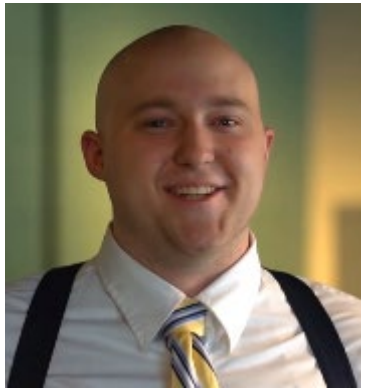
LTU Executive Council

- Dr. CJ Chung, Professor of Computer Science, Robofest Founder, Advisory Board Chair
- Dr. Christopher Cartwright, Associate Professor of Math, Robofest Director, 2021-2023; Chief Judge 2009-2020
- Dr. Eric Martinson, Associate Professor, Math & Computer Science; 2023 Exhibition Judge

Robofest Advisory Board

Paul M. Akangah

Emma Alaba



Phil Bigos

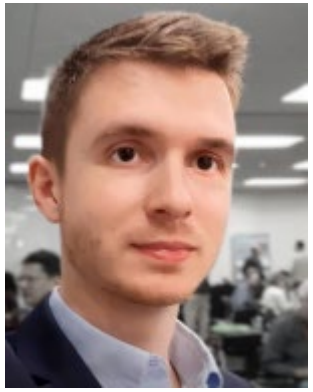
CJ Chung (Chair)

Gavin Coleman

Scott Eisele

Linda Pence

Josh Siegel



Gordon Stein

Maurice Tedder

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Lawrence Technological University

Technical Committees

- Define/design/refine competition rules
- Judging World Championship events and qualifying competitions
- A short Bio of each member on the category pages of the Robofest website

Game
Elmer Santos (*)
John Arnold
Chris Cartwright
Peter Guenther
Wisam Bukaita
CJ Chung (**)

UMC
Elmer Santos (*)
Curtis Sharif
Daniel Oliver
Destiny Anyaiwe
Scott Eisele
CJ Chung (**)

Exhibition
Shannan Palonis (*)
Ben Gonzalez
Jelani Stowers
David Carbery
Elmer Santos
Ajay Choudhary
CJ Chung (**)

RoboArts
Pam Sparks (*)
Kevin Gallatin
Erik Rosvold
Curtis Sharif
Elmer Santos
CJ Chung (**)

BottleSumo
Elmer Santos (*)
Chris Parker
Peter Guenther
David Carbery
Karthik Devaraj
CJ Chung (**)

Vcc
Erik Rosvold (*)
Tejaskumar B Patil
Rodrigo Rodriguez
Emily Trudell
Nathaniel Johnson
Steven Lowe, Jr
CJ Chung (**)

RoboMed
Yawen Li (*)
Choongbae Park
Hao Jiang
Aleksandra Kuzmanov
Andrew Ulaszek
CJ Chung (*)

RoboParade
Pam Sparks (*)
Kevin Gallatin
Katie Bis
Daniel Oliver
Jennifer Minaudo
CJ Chung (**)

(*) Chairperson (**) Advisory

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2024 Robofest Sponsors

Lawrence Technological University

mcwt
michigan council of women in technology foundation

KLA

3DMAKERPRO

NDIA Michigan

RoboRmatter INCORPORATED

IEEE

Overview and Schedule

What is Robofest®

- Founded in 1999 by the Math and Computer Science Department at Lawrence Technological University
- A festival of competitions with autonomous robots offering students the opportunity to master principles of STEAM while having fun
- Since 1999, over 34,600 students have competed in Robofest, including teams from 18 US States and over 30 Countries and Regions
- ROBOFEST is a trademark of Lawrence Technological University

ROBOFEST Lawrence Technological University

Robofest Mission Statement

Our mission is to:

- Generate excitement and interest among young people for Science, Technology, Engineering, Arts, and Mathematics (STEAM), Computer Science, and AI
- Develop essential skills such as teamwork, leadership, creativity, communication, and problem solving
- Prepare students to excel in higher education and technological careers

Features of Robofest

- **Developed and managed by Lawrence Technological University**
- **100% Autonomous** - sensors required
- **Any Robot Platform / Programming Language** - for most categories
- **Small Teams** - Max 5 students per team for most categories (average of 3)
- **Challenging** - dynamic playing fields, unknown factors, and no direct adult help allowed
- **Recognition** - All participants receive personalized medals and certificates
- **Affordable** - reuse old kits, off-the-shelf parts, $75 team registration fee
- **Variety** of competition categories for more opportunities in STEAM learning
- **Accountable** - Anonymous surveys of participants before and after competition to measure success of the program

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Robofest LTU Scholarship Opportunity

- Any participant of Robofest, In any category, At any level, At any time
- $3,000 annual renewable LTU scholarship (total of $12,000)
- Submission Deadline: April 1, 2024
- After submitting an LTU Application, complete the Robofest Scholarship application along with a 400-word essay regarding your Robofest experience and your career goals at LTU.edu Scholarship/First Year Students
- Submit a letter of recommendation from one of your Robofest adult coaches or mentors

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Robofest World Champion LTU Scholarship

- 1st Place Senior Division Game, Exhibition, RoboArts, RoboMed, UMC, and Vcc teams receive a **$20,000** annual LTU Scholarship certificate (total of **$80,000**)
- 2nd Place: **$16,000** (total of **$64,000**)
- 3rd Place: place and **$14,000** (total of **$56,000**)
- Must enroll at LTU the same year as their High School graduation
- Must meet LTU admission criteria and scholarship criteria of High School GPA of 3.0 or better
- Renewable each year provided the student is enrolled for a least 12 credit hours each semester and maintains at least a 3.0 GPA

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Michigan 99h Grant Funding

- Closed for 2024 season – Available again next season
- Michigan Department of Education 99h Robotics Competition Grant provides funding to Public School Districts, Intermediate School Districts, and Nonpublic Schools to participate in Robofest
- Grants between ***$500 and $1,200*** for teams and Coach Stipends ***between $1,000 and $1,500*** are available for Robofest teams that are pre-registered in the Robofest Registration system
- More information and detailed instructions is available on the Michigan Department of Education Tech Plan website: https://www.techplan.org/edtech-initiatives/rdi/competitive-99h-robotics-competition-grant/

MCWT Grant Funding

- Robofest Sponsor, Michigan Council for Women in Technology, provides ***$750 grants*** for up to 10 all-girls Robofest teams
- Applications are being accepted now!
- Applications are reviewed at the end of each month beginning in October, 2023
- Applications may be submitted as long as awards are available or until March 8, 2024
- More information and application: https://www.mcwt.org/programs/list/K-12-Initiatives/ROBOTICS-GRANTS

Site Host Opportunity

- Robofest relies on local volunteer host sites
- Hosting Robofest Competitions provides great visibility for your organization
- Showcase your facility, staff and students to prospective students (clients) and their parents, major media outlets, and the community at large
- Opportunities for STEAM Outreach in your local area
- Robofest Qualifying competitions are usually only half-day (4 hour) events
- Flexible Scheduling – Week night, Saturday or Sunday Morning or Afternoon

Site Host Opportunity

What LTU Provides to Host (at no cost):

- Promotion of your organization as an official Robofest Site Host
- Information management website for team and volunteer registration
- Competition preparation – Judge and volunteer training, game materials
- Event support – signage, name badges, program/agenda template
- Participant recognition – trophies, medals, certificates, and volunteer recognition

LTU Asks Host Organization to Provide:

- Facility - A gym or a large multipurpose room such as a cafeteria or banquet room with consistent lighting
  - Competition Area
  - Secure Pit Area (Game, BottleSumo or RoboParade categories)
  - Exhibition area (Exhibition category)
  - Audience seating
- Staff/Volunteers:
  - Site Host, Registration, MC and Chief Judge)
  - PLUS the amount required to manage each category and age division (Judges, Proctors, Set-up/Clean-up)
- Optional Team Check-in Fee of up to $20 per team to offset costs

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2024 Robofest Pre-Season Schedule

- **Sep 30, 2023:** Initial Rules Published
- **Oct 1:** US Team Pre-Registration Opens
- **Oct 6:** Kick-off Meeting I on Zoom
- **Nov:** International Competitions Begin
- **Nov 2:** Kick-off Meeting II at LTU and Zoom
- **Dec 12:** New Coach Workshop at MISD in Clinton Twp
- **Jan 13, 2024:** Kick-off Meeting III at LTU and Zoom
- **Jan ~ Feb:** Workshops for Registered Teams

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2024 Robofest Competition Schedule

- **Feb 10:** Game Warm-up and Judge Training at LTU
- **Feb 17:** US Competitions Begin
- **Apr 14**: US and International Qualifiers End
- **Apr 15:** Video Qualifier Submissions Due
- **Apr 18:** Video Qualifier and Wait List Teams Notified of Advancement to WC
- **Apr 19 & 20:** Michigan Invitational Events Hosted at LTU
- **May 9, 10 & 11:** 25th Robofest World Championship Events at LTU

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2024 Robofest Technical Workshops

- On-campus workshops in Computer Science Robotics Lab - J234
- Free for Registered Game or Exhibition Teams
- Students can register for multiple workshop types (categories/languages)
- Workshop materials will be posted to the eAcademy page on the Robofest website
- **Coaches may attend workshops**
- Schedule may change – List and Registration links on the “Registration” page under “Available workshops” menu

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2024 Robofest Technical Workshop Schedule

- Saturday, Jan 20:
  - 9:00am ~ Noon: VEX IQ with VEXcode
  - 1:00pm ~ 4:00pm: LEGO EV3 with Scratch
- Saturday, Jan 27:
  - 9:00am ~ Noon: LEGO EV3 with Scratch
  - 1:00pm ~ 4:00pm: LEGO SPIKE Prime/Robot Inventor with Scratch
- Saturday, Feb 3:
  - 9:00am ~ Noon: LEGO SPIKE Prime/Robot Inventor with Python
  - 1:00pm ~ 4:00pm: Intro to Exhibition LEGO EV3 with Scratch

General Competition Rules Highlights

– SUMMARY ONLY –
COMPLETE OFFICIAL GENERAL COMPETITION RULES DOCUMENT IS AVAILABLE ON THE 2024 Main Page ON ROBOFEST.NET

Coaches are responsible for communicating rules and updates to participants

Participants are responsible for following all 2024 General Competition and Category Rules

Coach Qualifications and Responsibilities

- Register in the Robofest system with a valid/confirmed email address and must check the email account regularly
- Review and understand General and Category Rules – Communicate with team members
- Register team for competitions - Enter and verify all student information (full name, grade, birthdate, student and parent email) and pay fee before registration closes
- Coordinate the completion of the **Informed Consent, Release and Media Authorization Form** per event for each team member with their parent or guardian (online or hard copy)

Coach Qualifications and Responsibilities

- Coordinate pre- and post-assessments online to help Robofest administration gather data
- Facilitate, transport, and oversee team members at team meetings and at Robofest competitions
- Ensure that students do the work. Coaches, parents, teachers or mentors **may not** directly assemble the robots, or write/edit the program code for the team at any time
- Agree to and abide by the Coach Pledge

Robofest Coach Pledge

As a Robofest coach, I have read and agree to abide by the Robofest 2024 general and category specific rules as they exist now and as they may be set forth during the Robofest season.
As a coach, I am responsible for communicating and enforcing the Robofest rules to team members, team volunteers, and others affiliated with my team. I understand that any rule updates, guidelines, additional information, and announcements will be communicated to me, officially via emails, or webpage updates. I am responsible for reading the information and I will relay it to all the people affiliated with my team. If any changes are made to my email account, I will notify Robofest administrators as well as update my coach profile.
As a Robofest coach, I understand that the students come first. Robofest is about the students learning computer technologies, science, engineering, and mathematics. Everything my team does starts and ends with the principle: the students do all of the work. My team members will do the designing and building of the robot, problem solving and programming. Adults can help them find the answers, but cannot give them the answers or make the decisions in detail.
I intend to uphold and maintain the Spirit of Robofest.

Team Formation

- Any organization such as a school, home school, civic organization, or club can form teams
- Review Grade Level Divisions for each competition category
- “Age Division Waiver Request” may be completed during registration for any exceptions in a student’s grade
- A team member may join multiple teams, but not in the same category
- A team can register at multiple qualifying sites if they would like a second chance to qualify

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Team Responsibilities

- Students do all the work. Coaches and mentors should only teach and guide the team to find their own solutions
- Observe all General and Category Rules
- Observe event check-in time set by the Site Host
- Bring all materials needed on competition day
- Follow Pit area Rules
  - Only teams and authorized adults in the pit
  - NO communicating with coaches/parents/mentors during work time
- Respect other teams and spectators
- Maintain the Spirit of Robofest

Robofest Team Pledge

As a Robofest team member, I understand that the focus of Robofest is about learning through competition.

I will show personal integrity by honoring all Robofest rules, valuing fair competition and respecting judges and all other participants.

I will do my own work. I will NOT receive outside help from coaches, mentors, electronic devices or other sources during competitions and I will strictly follow impounding procedures.

I pledge to make Robofest 2024 great by upholding the Spirit of Robofest.

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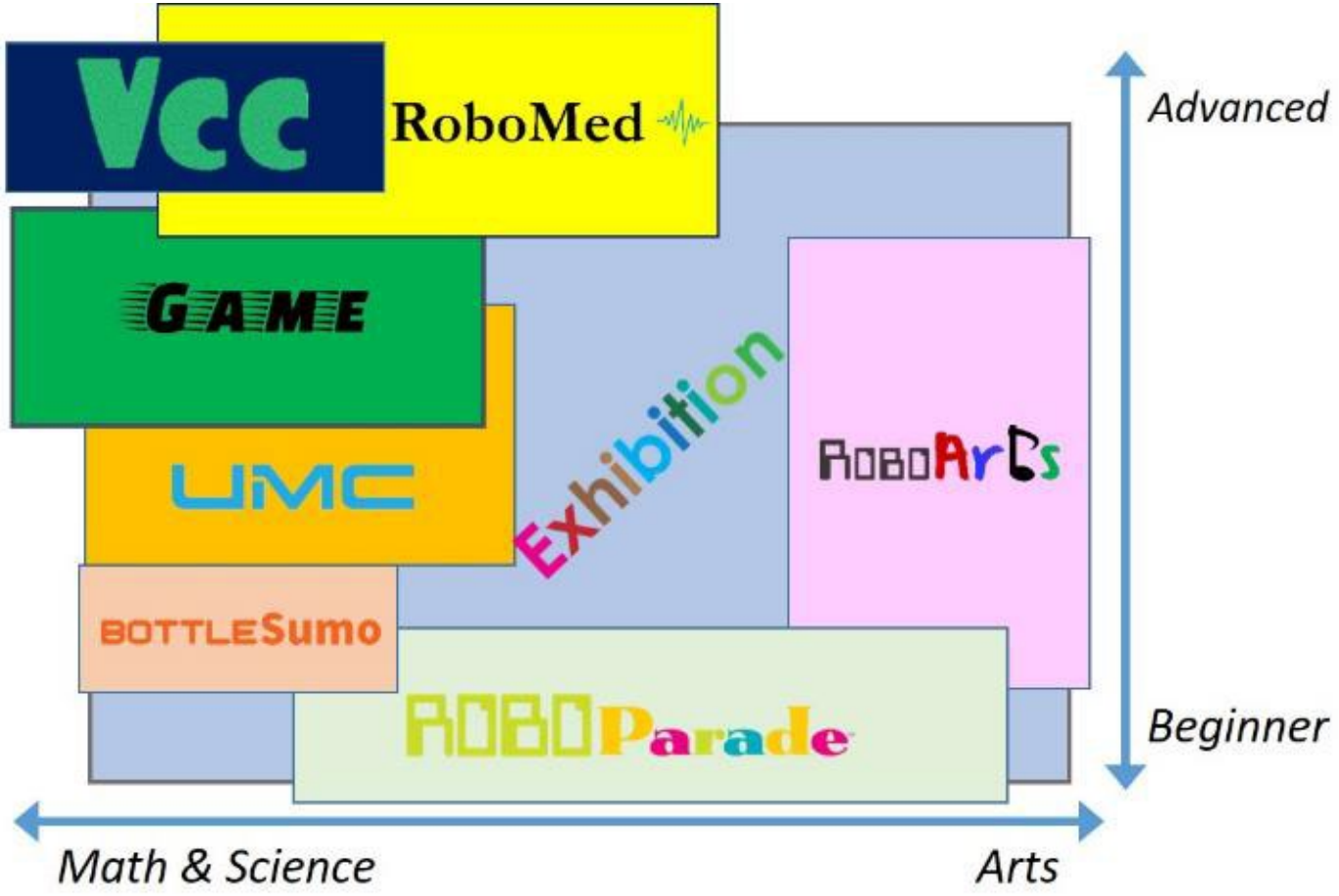
Competition Categories

2024 Qualifier Categories
2024 Open Categories

Robofest 2024 Competition Categories

- 8 Competition Categories
- Qualifiers and Open Categories
- Game Style (fixed rules) or Exhibition Style (project based)
- Different skill and experience levels
- Varied STEAM subjects



2024 Qualifier Categories

Teams must compete at a 2024 In-Person or Video Qualifier competition in order to advance to the Robofest World Championship Final events at LTU on May 11, 2024

Qualifier Competition Category	Age (Grade*) Divisions	Maximum Team Size	Robot Platform	Unknown Factors
2024 Game: **Autonomous Taxi**	Jr. (5~8) & Sr. (9~12)	5	Any	Unknown factors are unveiled during the competition
Exhibition	Jr. (5~8) & Sr. (9~12)	5	Any	Lighting Conditions that may impact robot sensors

(*) School Grade in spring 2024 - For exceptions to student's grade, complete the online "*Age Division Waiver Request"* at the time of registration

2024 Open Categories

Any team from US or non-member countries may register as long as space is available, with no qualification necessary. Some US Sites may also host open category competitions.

International Member Country Delegates are selected by their Director based on a set quota.

Open Competition Category	Age (Grade*) Divisions	Maximum Team Size	Robot Platform
BottleSumo	Jr. (5~8)	3	LEGO NXT, EV3, SPIKE Prime/Robot Inventor, or VEX IQ
	Sr. Classic (9~12)	3	
	Sr. Unlimited (9~12)	3	Any
Unknown Mission Challenge (UMC)	Jr. (5~8) & Sr. (9~12)	4	LEGO NXT, EV3, SPIKE Prime/Robot Inventor, or VEX IQ

(*) School Grade in spring 2024 - For exceptions to student's grade, complete the online "*Age Division Waiver Request"* at the time of registration

2024 Open Categories

Any team from US or non-member countries may register as long as space is available, with no qualification necessary. Some US Sites may also host open category competitions.

International Member Country Delegates are selected by their Director based on a set quota.

Open Competition Category	Age (Grade*) Divisions	Maximum Team Size	Robot Platform
RoboArts	Jr. (5~8) & Sr. (9~12)	5	Any
2024 RoboParade: **On the Farm**	Expanded Jr. (4~8)	5	Any
RoboMed	Jr. (5~8) & Sr. (9~12)	5	Any
Vision Centric Challenge (Vcc)	Sr. (9~12)	5	Any

(*) School Grade in spring 2024 - For exceptions to student's grade, complete the online "*Age Division Waiver Request"* at the time of registration

Registration Fees

- ***Some International Site Hosts may have different fee structure**
- Separate Fee applied to each event
- No refunds will be given
- Sites may request additional site check-in fee
- Teams who advance to the Robofest World Championship will pay a separate Registration Fee to LTU Robofest

Event/Format	Fee*
Qualifier - In-Person	$75
Qualifier - Video Submission	$75
Open Events - In-Person	$75
World Championship Events (Finals and Open Category)	$75

Advancing to World Championship

Michigan Teams
US (non-Michigan) Teams
International Teams

Advancing to World Championship

Advancement to the Robofest World Championship Game and Exhibition Finals differs depending on the category and on where a team is located.

- Michigan Game Teams
- Michigan Exhibition Teams
- US (non-Michigan) Game Teams
- US (non-Michigan) Exhibition Teams
- International Teams

All Michigan and US teams may register for Open Category events at the World Championship as space allows

Advancing to World Championship – MI Game

- 1st Place Award-winning Game team from each qualifying competition will automatically advance to the Robofest World Championship Game Finals
- Other Game teams may be invited to the Robofest World Championship Game Finals based on their qualifying score
  - Teams will be notified of advancement no later than Monday April 15, 2024
- Teams who would like a second chance to qualify for the World Championship Finals may register to compete again at (1) another local qualifier (2) via Video Qualifier USA submission OR (3) a Michigan Invitational event at LTU on April 19-20
  - Team must register with a new team number and pay a new registration fee
  - Total number of teams advancing to the Finals will be decided by the team's scores

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Advancing to World Championship – MI Exhibition

- 1st Place Award-winning Exhibition team from each Qualifying competition will automatically advance to the Robofest World Championship Exhibition Finals
- Other Exhibition teams may be invited to the Robofest World Championship Exhibition Finals based on their Preview Video and score
  - Preview Video link must be uploaded to the team's registration page
  - Teams will be notified of advancement no later than Monday April 15, 2024
- Exhibition teams who would like a second chance to qualify for World Championship Finals may register to compete again via Video Qualifier USA submission
  - Team must register with a new team number and pay a new registration fee
  - Total number of teams advancing to the Finals will be decided by the team's scores

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Advancing to World Championship – US (non MI) Game

- 1st Place Award-winning Game team from each qualifying competition will automatically advance to the Robofest World Championship Game Finals
- Other Game teams may be invited to the Robofest World Championship Game Finals based on their qualifying score
  - Teams will be notified of advancement no later than Monday April 15, 2024
- Game teams who would like a second chance to qualify for the World Championship Finals may register to compete again via Video Qualifier USA submission
  - Teams must register with a new team number and pay a new registration fee
  - Total number of teams advancing to the Finals will be decided by the team's scores

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Advancing to World Championship – US Exhibition

- 1st Place Award-winning Exhibition teams from each Qualifying competition will automatically advance to the Robofest World Championship Exhibition Finals
- Other Exhibition teams may be invited to the Robofest World Championship Exhibition Finals based on their Preview Video and score
  - Preview Video link must be uploaded to the team's registration page
  - Teams will be notified of advancement no later than Monday April 15, 2024
- Exhibition teams who would like a second chance to qualify for World Championship Finals may register to compete again via Video Qualifier USA
  - Teams must register with a new team number and pay a new registration fee
  - Total number of teams advancing to the Finals will be decided by the team's score

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Advancing to World Championship - International

- International Game, Exhibition and Open Category teams in Member Countries will compete at Member Country Events
- List of International Directors is available at Robofest.net
- Qualified teams will be advanced to the World Championship through the Director
- International Game and Exhibition teams in non-member countries may compete via Video Qualifier International Submission, due April 15, 2024
- International Open Category teams in non-member countries can register directly for the Robofest World Championship Open Category events as space permits

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World Championship – International Team Quota

The number of teams each National Organizer may advance to the 2024 Robofest World Championship events is based on the number of local events* and teams hosted and is set as follows:

Game and Exhibition Categories; Junior and Senior Divisions**	
# of Teams Competing at Local Event in Category/Division	# of Teams Advancing to Robofest World Championship Finals
5-49	1
50+	2

Open Categories; Junior and Senior Divisions***	
# of Teams Competing at Local Event in Category/Division	# of Team Entries for Robofest WC Open Category Event
1-49	1
50-99	2
100+	3

* Official event registered in the Robofest Management System. ** Maximum number of Game and Exhibition teams per country is 2
*** Maximum number of Open Category Teams is 3 for any category. If an open category is not hosted, one team per open category may be selected to represent the country at the World Championships
The quota is conditional only when national directors fulfil the requirement defined in the LOA. Group photo to verify the # of students/teams is required for each division.

Video Qualifier Submission

- International Game and Exhibition teams in non-member countries may register in Video_Qualifier_International
- US Game and Exhibition Teams may register in Video_Qualifier_USA
- Registration Fee: $75
- Game Unknown Tasks and Factors (UTF) will be emailed to the coach on Thursday, April 4, 2024
- Submission Deadline is 11:59 pm Eastern Time, Monday, April 15, 2024
- Adults may help produce the video. Team should acknowledge everyone involved in the video production in the end credits
- Upload the video to a video sharing site (YouTube, Vimeo, etc.). Insert link on Team Registration page

Open Competition Category Highlights

BOTTLESumo

- Be the first robot to intentionally push a bottle off the table OR be the last robot remaining on the table
- Three Divisions:
  - **Junior:** (Grades 5~8): Limited to LEGO NXT, LEGO EV3, LEGO SPIKE Prime/Robot Inventor, and VEX IQ
  - **Senior Classic:** (Grades 9~12): Limited to LEGO NXT, LEGO EV3, LEGO SPIKE Prime/Robot Inventor, and VEX IQ
  - **Senior Unlimited:** (Grades 9~12): Any robot platform
- Maximum team size: 3
- New table configurations and Unknown Tasks for 2024 season
- Rules, score cards, and examples: robofest.net: **BottleSumo**

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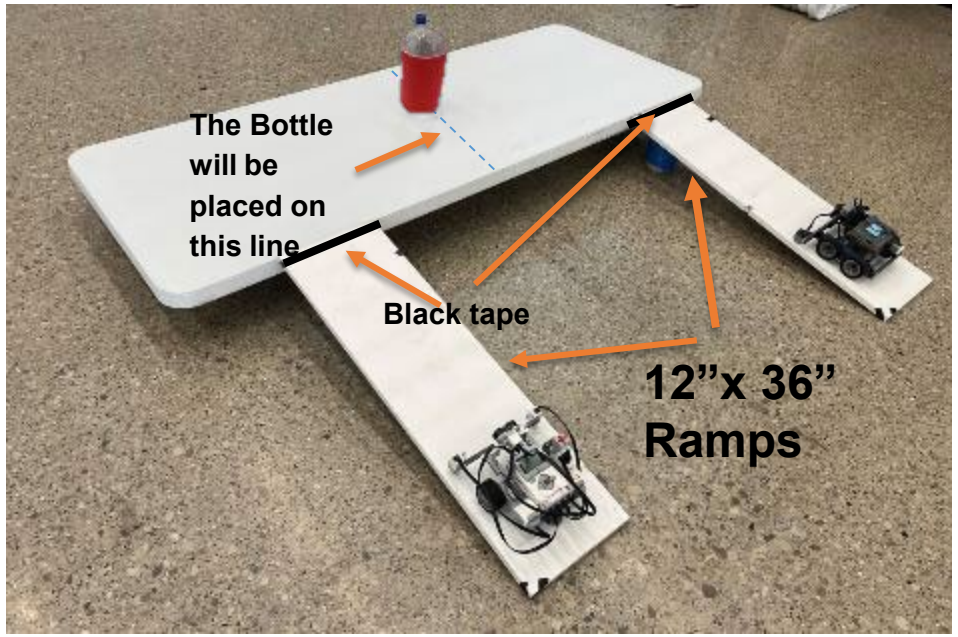
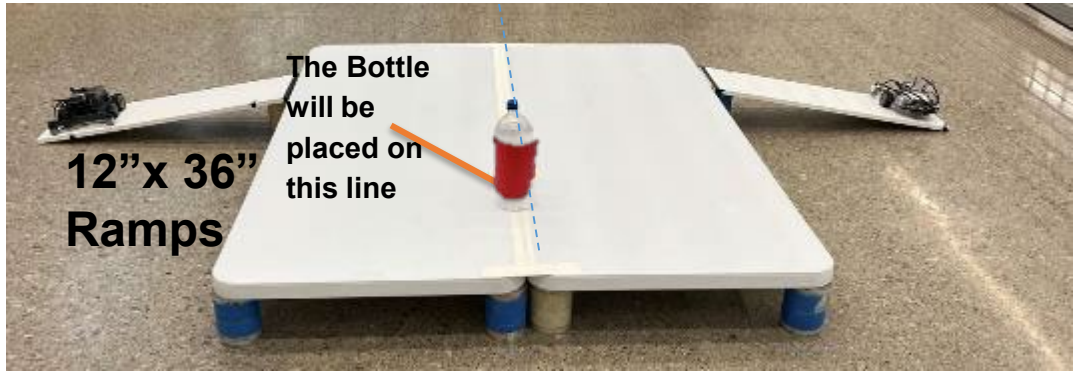
BottleSumo Playing Fields

- **Junior Division**: Made up of one table and two ramps



- **Senior Divisions**: Made up of two tables and two ramps (configuration will be unveiled)



Connect tables with tape of a matching color

- Robot must be able to start anywhere on a ramp and in any orientation
- Exact ramp location will be unveiled prior to each match

[Sample match]

Unknown Mission Challenge

- Missions are completely unknown until the day of the challenge
- All robot components must be un-assembled at start of event
- Two Age Divisions:
  - **Junior:** (Grades 5-8)
  - **Senior:** (Grades 9-12)
- Maximum team size: 4
- Limited to LEGO NXT, LEGO EV3, LEGO SPIKE Prime/Robot Inventor or VEX IQ kits
- Rules to get started (not the mission): robofest.net: UMC

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Vision Centric Challenge

- Vision based robot challenge for advanced High School students
- 2024 Challenge “Vision Based Measurement System”
- Visual Inspection challenge simulating a Manufacturing environment
- **One Age Division:**
  - **Senior:** (Grades 9-12)
- Maximum team size: 5
- Rules and Scoresheet: robofest.net: Vcc

Vcc Scenario

- Manufacturing involves making parts that meet the dimensional requirements of the blueprint. Teams will be given:
  - A blueprint with a number of dimensions
  - Ten numbered sample parts to measure
- The objective of the game will be to inspect each of the parts and to:
  - Identify if each dimension meets the print requirements or not
  - Provide the dimensions for a single Key Product Characteristic (KPC) on each part
    - The KPC is the key dimension on the part that must have the numeric value recorded
    - The KPC will be explicitly identified on the print (see examples)
    - Note: Even though there are 5 dimensions to measure, only one, the KPC needs a value reported
- Measurement must be done using visual/non-contact techniques
  - Students may touch parts to load and unload parts
- Teams will learn and utilize real world skills such as:
  - Computer Vision
  - Open CV Library

RoboArts

- Exhibition style projects specifically focused on the visual which includes drawing/painting, kinetic arts, and sculptures, and performing arts including dance, music, and skits
- Two Age Divisions:
  - **Junior:** (Grades 5-8)
  - **Senior:** (Grades 9-12)
- Maximum team size: 5
- Rules and Rubric: robofest.net: RoboArts

RoboMed

- Exhibition style projects of intelligent and interactive (bio) medical robotics/devices or related to (bio)medical and healthcare fields using sensors and/or actuators
- Promotes on entrepreneurial mindset
- Two age divisions:
  - **Junior:** (Grades 5-8)
  - **Senior:** (Grades 9-12)
- Maximum team size: 5
- Rules and Judging rubrics: robofest.net: **RoboMed**

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RoboParade

- Robots are constructed and programed by student participants to follow the parade route, detect other vehicles, stop and start without human help
- 2024 World Championship Event Theme: **“On the Farm”**
- **Local events may have their own theme**
- Robots pull or carry decorative parade floats. Moving parts are allowed
- One Expanded Age Division
  - Junior - 4^{th} ~ 8^{th} Grade (no waiver needed) Perfect category for beginning autonomous robotics
- Maximum team size: 5
- Teams of 1 allowed, but will receive the lowest possible score for teamwork
- New 2024 Rules and Judging Rubric: robofest.net: **RoboParade**

Exhibition Rules Highlights

Exhibition

- **Qualifier Category:** Teams compete at local or online qualifiers, or through video submission, to advance the Robofest World Championship
- Team has complete freedom to create interactive and intelligent robotics projects
- Two Age Divisions:
  - **Junior:** (Grades 5-8)
  - **Senior:** (Grades 9-12)
- Maximum team size: 5
- Rules and Judging Rubric: robofest.net: **Exhibition**

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Project Requirements/Limitations

- Prior to competition day, teams are required to provide:
  - Brief written project description
  - Preview Video link uploaded to the Robofest registration system
  - Source code one week prior to competition for judge review.
- Teams must bring all the necessary materials for their Exhibition presentation
- Any material that is safe for humans can be used
- Robot-to-robot as well as human-to-robot interactions strongly encouraged
- Wireless program controlled remotes are allowed
- Must employ sensors
- Demonstration space for each team is limited to a maximum of 64 square ft
- Projects entered in a previous competition category of any kind can be entered, but team must add new features and/or significantly improve or change one or more features

ROBOFEST Lawrence Technological University

LAWRENCE TECHNOLOGICAL UNIVERSITY
ROBOFEST
2024

GAME

Autonomous Taxi

V 3.0 – Final Version for 2024 Season

Go to the **Game** page on the website

Coaches are responsible for communicating rules updates to participants

www.robofest.net robofest@ltu.edu 248-204-3568

Room J233 Taubman Complex, LTU

21000 West 10 Mile Road, Southfield, MI 48075, USA

Q & A

Rules documents will be adjusted for clarity and to add any questions/answers

Send questions to robofest@ltu.edu