Exhibition

Intelligent and Interactive Robotics Science Fair

V 1.0 – International Kickoff Version for 2020 season. Each country may clarify/adapt/change rules for each country's qualifying competitions. World Championship rules will be finalized in Jan 2020.

This file can be found under the **Get Involved→Exhibition** 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

1. Exhibition Overview

Learning Objectives

- Applications of science
- Creativity and problem solving
- Technical communication skills
- Developing autonomous algorithms
- Computer programming logic
- Sensor implementation
- Adjusting to environmental conditions
- Teamwork

Synopsis

- Robofest Exhibition is a great way for students to show off their imagination, innovation and creativity
- Teams compete at local qualifiers (or through video submission) to advance the Robofest World Championship
- Each team has complete freedom to create interactive and intelligent robotics projects such as robots for scientific experiments and robots for practical applications

2. Exhibition Age Divisions and Team Size

- Junior Division (Grades 5-8)

- Senior Division (Grades 9-12)

Maximum five (5) members per team for Jr. Division and Sr. Division

- Recommend 2 or 3 students per robot controller

- If a team has only one member, he/she will automatically receive the lowest score for the teamwork category

Team Registration Fee: $50

Team Advancement information can be found in Robofest 2019-2020 General Rules at robofest.net

Each team member, as well as the coach, must bring the signed Robofest Consent and Release Form on the day of the event, if not completed on-line

3.Project Requirements/Limitations (1/2)

- A brief written description of the project is required on the Team Registration page. Revisions to this description and any other team information may be made until the registration site is closed (approximately 10 days prior to the competition day)

- Any material that is safe for humans can be used

- Robot-to-robot as well as human-to-robot interactions are strongly encouraged

- Wireless program controlled remotes are allowed. For example, a human controlled EV3 controller can control other EV3 robots if the program of the remote controller is written by students

- Sensors must be employed to assure the robot is interacting with its environment instead of just dead-reckoning

- Team will be provided by the host a 6ft or 8ft long table on which to display/demonstrate the robots

3. Project Requirements/Limitations (2/2)

- The demonstration space for each team is limited to a maximum of 64 square ft. including 6ft or 8ft table that is provided by the host. Teams may choose to demonstrate robots/devices on the floor. Exceeding maximum space allowed may result in deduction of points

- Teams must bring all the necessary materials for their exhibition.

- Projects which have been 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

  - Describe the addition/changes in the project description text area of the online team registration form.

  - Inform Judges during the official presentation that their project is a "continued" form of a previous project

Exhibition Rules 2020

4. Project Presentation

- Teams must present their project to the group of Judges with a formal presentation at a time specified by the Site Host

- Teams will have a maximum of 4 minutes to explain and demonstrate their project to the Judges

- Teams are responsible for keeping track of their 4-minute time limit **(Exceeding time limit may result in deduction of points)**

- Teams will also present & demonstrate their project to spectators throughout the event

5. Exhibition Judging

- The judges will use the rubric that is posted on the "Exhibition" page at robofest.net

- In addition to the formal presentation, Judges will visit the team tables individually to ask additional questions, evaluate robots, and inspect program code at any time within the Official Judging time blocks, as noted in the program

- "Secret Judges" may visit teams throughout the day to ask questions, check displays and observe interactions with spectators. These judges will not identify their roles.

- Age-appropriate math and science applications will be judged
  - Advanced level skills are fine to use, however, they may not necessarily result in the highest scores in the STEM learning category on the rubric

6. Project Recommendations

- There is no official theme for this season

- It is requested that teams bring poster boards or other signage to describe their projects

- Hardcopies of team project documents to give to the judges are a plus, but not required

- Highly recommended that each Exhibition team set up a team website and/or publish a video clip on a video sharing site such as YouTube
  - Judges will use them to preview the team projects prior to the competition day.
  - Teams should plan to bring a laptop to show their video and/or display their website during the competition

- Visit www.robofest.net and click on the Prior Years link to view Exhibition projects from previous years

7. Exhibition People's Choice Award

- During the World Championship Event, Spectators will decide the People's Choice Awards (PCA)

- Only one vote per person is allowed

- Ballot will be provided to spectators who register at the PCA Judge Registration Table

- Spectators who view a minimum number of Exhibition, RoboArts, and RoboMed presentations (stated on the ballot) will be entered into a raffle for prizes to be awarded at the closing ceremonies

- Exhibition teams will be given labels to distribute to eligible spectators to affix on the ballot on the day of the competition