



# LAWRENCE TECHNOLOGICAL UNIVERSITY ROBOFEST®

little robots, **BIG MISSIONS**

*A Competition Motivating Young Minds to Master the Machine*

Robofest is a festival of competitions with autonomous robots to master principles of science, technology, engineering, and math (STEM), computer science, Information and Communication Technologies (ICT), and problem solving skills while designing, constructing, and programming the robots.

Since 1999, over 16,000 students have competed in Robofest, including teams from 13 US States, England, Canada, China, France, India, Brazil, South Korea, Mexico, South Africa, Hungary, and Singapore.

Teams compete in the junior (grades 4-8), senior (grades 9-12), and college divisions in the following categories:

- **Game.** Students undertake annual robotic missions.
- **Exhibition.** Teams have complete freedom to show off any creative autonomous robotics project.
- **Vision Centric Challenge (VCC™)** – Teams develop a vision centric robot to maneuver through an obstacle course.
- **Unknown Mission Challenge (UMC™)** - Mission tasks will be totally unknown until the day of competition.
- **Global Robotics Art Festival (GRAF™)** – Robotics music, dance, and visual arts competition
- **BottleSumo™** – Push a bottle and/or opponent off the table
- **RoboParade®** - Parade of Autonomous robots!

In addition, associate programs are:

- **Camp** – a mini competition after a half-day workshop
- **WISER** - World conference on Integrated STEAM Education through Robotics
- **WRO™** - World Robot Olympiad (Robofest is the USA National Organizer)

2013-2014 Major Sponsors

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## Unique Features of Robofest

**Look Mom, No Hands!**: Students must fully program their robots to perform their missions without human assistance. No joysticks or remote controls are allowed.

**Your Mission, If You Decide to Accept It:** Is (partly) unknown or dynamic. Students must program their robots to accomplish tasks in a dynamic environment.

**Students Rule:** While adult mentorship is encouraged, students design, construct and program the robots, and students make all decisions during competitions without any direct adult help.

**It's Flexible:** Any type of robot kit, materials, actuators, and sensors are allowed. Robots can be programmed with any programming language.

**Affordable:** Team registration is \$30 ~ \$50 per team. Reusing parts and old kits is encouraged. Teams can be formed by any organization, school, home schools, clubs or civic group.

**Everyone is a Winner:** All registered participants receive medals and personalized certificates. Winners of the qualifying and championship rounds receive trophies. Top teams in the World Championship senior division receive \$2,000 LTU renewable scholarships.

## 2014-2015 Academic Year Timeline

When	Events
~ early Sep, 2014	WRO local tournaments
Sep 27, 2014	WRO USA final at LTU
Oct ~ Nov 2014	RoboParades in various states
Oct 25, 2014	RoboParade and Global Robotics Art Festival (GRAF) at Macomb Community College Expo Center, MI
Dec 4, 2014 (Kick-off meetings)	Rules for Spring season posted at <a href="http://www.robofest.net">www.robofest.net</a> . Team Registration begins.
Mid Jan ~ February	Free technical workshops at LTU and Webinars
Late Feb, 2015	Warm-up competition & Judge training (Webinar) at LTU
Jan* ~ Mid April	Qualifying Competitions (* International Sites)
April 11, 2015	Video Qualifier Deadline
May 2, 2015	Michigan Championships at LTU, MI
May 15, 2015	BottleSumo, BottleZone, UMC, and WISER at LTU
May 16, 2015	15 <sup>th</sup> World Robofest Championship, VCC at LTU
Summer, 2015	Robofest Summer Camps WRO local tournaments

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