



# LAWRENCE TECHNOLOGICAL UNIVERSITY ROBOFEST®

Little Robots, **Big Missions**

A Competition Motivating Young Minds to Master the Machine

## A Competition Motivating Young Minds to Master the Machine

Robofest is a competition of autonomous robots – programmed to act independently and not remote-controlled – that encourages students to have fun while learning principles of physical science, computer science, technology, engineering, and math (STEM), Computer Science, and Information and Communication Technologies (ICT). Students design, construct and program the robots, and adult coaches are not allowed to assist during the events.

Since 2000, over 14,000 students have competed in Robofest, including teams from 13 US States, England, Canada, China, France, India, Brazil, South Korea, Mexico, and Singapore.

Teams compete in the junior (grades 4-8), senior (grades 9-12), and college divisions. Student teams, composed of up to seven members each, can compete in several ways:

- **Games.** Students undertake annual robotic missions.
- **Exhibition.** Each team has complete freedom to show off any creative autonomous robotics project.
- **Associate Events:**
  - **Vision Centric Robot Challenge (VCRC)** - develop a vision centric bot to maneuver through an obstacle course
  - **Unknown Mission Challenge (UMC)** – mission tasks will be totally unknown until the day of competition
  - **Bottle RoboSumo**
  - **RoboParade®**
  - **Global Robotics Art Festival (GRAF)**

2012-2-13 Major Sponsors

**ROBOTIS**

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**NDIA**  
National Defense Industrial Association

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simulation • vehicle dynamics • human factors

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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 adult coaches are not allowed to assist during the competition.

**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 personalized medals and certificates. Winners of the qualifying and championship rounds receive trophies. Top teams in the World Championship senior division receive \$2,000 LTU renewable scholarships.

## 2013-2014 Timeline

When	Events
Sep 21, 2013	Bottle RoboSumo Camp & Competition at CWM
Oct 26, 2013	RoboParade in Detroit and SugarLand, TX
Nov 9, 2013	RoboParade in St. Petersburg, FL
Nov 23, 2013	RoboParade and Global Robotics Art Festival (GRAF) at Macomb Community College
Early Dec, 2013	Unknown Mission Challenge (UMC) at LTU
Early Dec, 2013	Rules for Spring season to be posted at (Kick-off meetings) <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, 2014	Warm-up competitions & Judge training at LTU
March ~ Mid April	Qualifying & Regional Competitions
May 16, 2014	Bottle RoboSumo at LTU
May 17, 2014	North American Championship at LTU
May or June, 2014	15 <sup>th</sup> World Robofest Championship
Summer, 2014	Robofest Summer Camps & RoboMusic Camps

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