



# 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) 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 10,000 students have competed in Robofest, including teams from 13 US States, England, Canada, China, France, South Korea, Mexico, and Singapore.

Teams compete in the junior division (grades 5-8) and senior division (grades 9-12). 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.
- **RoboFashion & Dance.** Teams of two robots will show off their costumes and choreography while interacting with each other, and team members.
- **Associate Events:**
  - **Vision Centric Robot Challenge (VCRC)** - develop a vision centric bot to maneuver through an obstacle course.
  - **Hexapod, Bottle, and 2V2 Robot Sumo**
  - **RoboParade**

### Sponsors

THE HERBERT AND ELSA PONTING FOUNDATION



## 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 \$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 senior division receive \$2,000 LTU renewable scholarships.

### 2011-2012 Timeline

When	Events
Sep. 26, 2011	RoboExpo 2011 at Lawrence Tech, 12-5pm
Nov. 19, 2011	6 <sup>th</sup> Annual Thanksgiving RoboParade, MCC
Dec. 9, 17 2011 (Kick-off meeting)	Draft rules to be posted at <a href="http://www.robofest.net">www.robofest.net</a> Coach/Team Registration begins
Early January	Finalized official rules to be posted
Mid January ~ February	Free technical workshops Site volunteer registration begins
Feb. 18, 2012	Warm-up competitions and Judge training
March ~ Mid April	Qualifying & Regional Competitions
May 19, 2012	13 <sup>th</sup> World Robofest Championship at LTU
June 9-10, 2012	Robofest Sumo at IGVC, Oakland University

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