April

World Robofest Championship and the VEX Pentathlon at Lawrence Tech

Participants at regional and international Robofest competition sites receive medals and framed personalized certificates. Large trophies are presented to the winning teams. Competitors in the World Robofest Championship receive individual trophies. Large trophies and prizes are presented to the winning teams.

Call 248.204.3566, email robofest@ltu.edu, or visit www.robofest.net for more information.

Sponsors Make Robofest Possible

Corporate and foundation support keeps Robofest affordable and accessible to young people interested in science, technology, engineering, and mathematics. This is especially true in communities with limited resources. Please help us to continue the work of this important program by becoming a Robofest sponsor. Sponsors are recognized on the Robofest website and at each of the contest sites. Visit www.robofest.net for detailed sponsorship information.

Contest Site Hosts

Robofest looks to expand the contest to additional states and countries and is always seeking new site hosts. If your organization is interested in participating as a Robofest site host, please call 248.204.3566, email robofest@ltu.edu, or visit www.robofest.net.

LAWRENCE TECHNOLOGICAL UNIVERSITY

ROBOFEST®

Little Robots, **Big Missions**
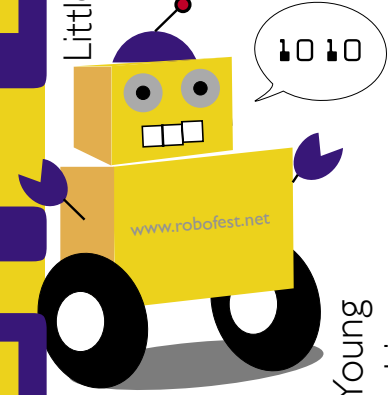
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www.robofest.net

A Competition Motivating Young Minds to Master the Machine

LAWRENCE
TECHNOLOGICAL
UNIVERSITY®

College of Arts and Sciences

Department of Mathematics and Computer Science

www.robofest.net

An international competition for students in grades 5 through 12, Robofest challenges participants to design, build, and program autonomous robots to complete playful missions or exhibitions. Young people have fun while learning computer programming, engineering, math, and science.

Started at Lawrence Technological University in 2000, Robofest has grown to include hundreds of students at venues in the United States and several other countries.

The Competition
Student teams, composed of two to seven members each, can compete in several ways:

Games
Students are challenged to accomplish missions using two fully autonomous robots they have created and programmed to work cooperatively. Such missions have included relay races, extinguishing fires, and searching for and rescuing earthquake victims. A newly added mission is the Head-to-Head Sumo Challenge.

Exhibition
Students demonstrate the creative tasks they have constructed and programmed their autonomous robots to accomplish. Such robots have danced, played music and games, performed mathematical calculations, and demonstrated data logging capabilities. This part of the competition is limited only by the students' imaginations.

VEX™ Pentathlon
This part of the competition features five events that VEX™ Team robots can participate in: Skeeball, Long Jump, Tug-of-War, Bottle Bowling, and Race Track.

Age Divisions
Junior Division: 5–9 grade
Senior Division: 9–12 grade

Look, Mom, No Hands
Students must totally program their robots to perform their missions with no human assistance. That means no joysticks or remote controls are allowed. Robots must be programmed to sense and respond appropriately on the dynamic playing field.

Your Mission, If You Decide to Accept It . . .
. . . Is unknown. At least partly. That's where the real fun begins. Unlike other robotics competitions, Robofest presents students with small challenges, which are kept secret until the beginning of each contest. Parts of the playing field are rearranged, and students must program their robots to work on the fly, solving problems quickly, reliably, and creatively.

The Thrill of Victory
While adult mentorship is encouraged in all phases of preparation, students make all decisions and perform all robot programming during the competition. The students learn to master

the machines, and when their missions are successfully completed, they alone, like any athlete, are the victors.

It's Affordable
Robofest is the most affordable autonomous robotics competition in the nation. No big corporate teams are necessary. Nor are several-thousand-dollar budgets. Just a $40 registration fee per team. Teams can be formed by any organization, such as schools, home school networks, clubs, and civic groups.

It's Flexible
Students can use any kind of robot kit, building materials, actuators and sensors, and software they choose. Robot kits can include Basic Stamp®, Hemisson IntelliBrain™-Bot, Flutter Bot, Handy Board, NXT, Handy Cricket, Boe-Bot™, I-ROBO™, Lego® Mindstorms™, or VEX™. Building materials can include bolts, nuts, paint, glue, stickers, etc. Any type of programming language is allowed, such as RCX code, RoboLab™, NQC, IC, C++, Visual Basic, PBasic, Forth, Python, Java™, and NXTG. Furthermore, the playing field is modular and easy to transport and store—and it can be used year after year. Student teams can practice anytime and anywhere they like.

Robofest Timeline
December
Registration begins and remains open until all competition sites are filled. Register at **www.robofest.net**. Competition sites are generally located in schools and colleges. The kick-off date will be announced in the Robofest e-newsletter.
January
Rules will be finalized
March and April
Competitions held (international competitions may take place earlier). Top teams qualify to move on to the World Robofest Championship