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.





The Future in the Making

College of Arts and Sciences Department of Mathematics a Computer Science 21000 West Ten Mile Road Southfield, MI 48075-1058

A Competition Motivating Young Minds to Master the Machine

Little Robots, Big Missions



Little Robots, **Big Mission**

A Competition Motivating Young Minds to Master the Machine

1010

NRENC 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 robots to complete playful missions. Young people have fun while learning computer programming, engineering, math, and science.

Started at Lawrence Technological University in 2000, Robofest has grown to include over 125 teams and 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 two 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.

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.

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 changes in mission, 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 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 robotics competition in the nation. No big corporate teams are necessary. Nor are several-thousand-dollar budgets. Just a \$35 registration fee per team. Teams can be formed by any organization, such as schools, home school networks, clubs, and civic groups.



Students can use any kind of robot kit, building materials, actuators and sensors, and software they choose. Robot kits can include Basic Stamp®, Handy Board, 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 Logo. 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.

lanuary: Rules will be finalized

April: Competitions held (international competitions may take place earlier). Top teams move on to the World Robofest Championship

May: World Robofest Championship 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.

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