

5th Annual Thanksgiving RoboParade



Saturday, November 20, 2010
12:30 – 3:30 p.m.

www.robofest.net

Macomb Community College
Lorenzo Cultural Center
Clinton Township, Michigan

Lawrence Tech University Robofest office is organizing the 5th annual indoor Robot Thanksgiving Parade to be hosted by Macomb Community College at Lorenzo Cultural Center. The parade features robot floats constructed and programmed by student participants. Attendees of the parade will be able to see fully autonomous robot floats that follow the parade route while detecting other robots in front of them. The robot floats are programmed to stop and start without human help. Streaming videos of the previous parades can be found on the RoboParade home page at www.robofest.net/roboParade.htm
New This year: We will be adding a people's choice award.

Team Registration and Qualification

- A team can enter only one robot float. If a coach has multiple robotic floats, please register multiple teams.
- There is a maximum of 40 robot floats in the parade. Register online at www.robofest.net . There will be free technical workshops for registered teams.
- A team can have up to 7 team members.
- Student in grades 4-12 may participate.
- The registration fee per team is \$20.
- Each team must come to a **test parade** using the actual parade route to ensure that all robot vehicles meet the specifications and functional requirements. Test parade dates and times at Macomb Community College are:

- **Friday, November 19, 5:00 pm – 8:00 pm**

- **Saturday, November 20, 10 am – Noon** (for this slot, teams must make an appointment)

If the team's robot passes the test, then the float ID (flag) will be given. Without the flag, robots cannot participate in the official parade to be started around 2pm. There will be no exception.

Robot Requirements

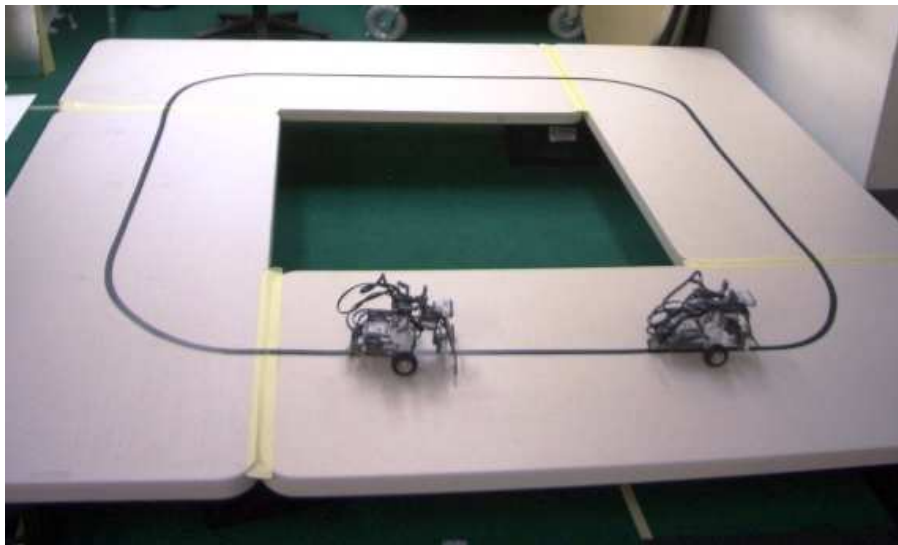
- Robot type: any, as long as it is fully autonomous.
- Number of robot controllers, sensors, or motors: unlimited.
- Size: there will be width and length limitations based on the width of the route. See the next section.
- There is no limitation on height or weight.
- The rear part of your float should be flat in case the robot behind is using touch sensors.
- Each robot may have its own sponsor logos. Each robot is required to carry a small flag with a number, which will be given if the robot passes the test.
- Program requirements:
 1. Robot must have a reliable program to follow a black line on a bright surface.
 2. Robot must have the ability to detect a vehicle in front of it and stop; then automatically re-start when the vehicle in front has cleared.

3. Wireless interaction between the robot and team players using sound, ultrasonic, or light sensors is encouraged.
- Robot speed requirements: 4cm/sec ~ 18cm/sec.

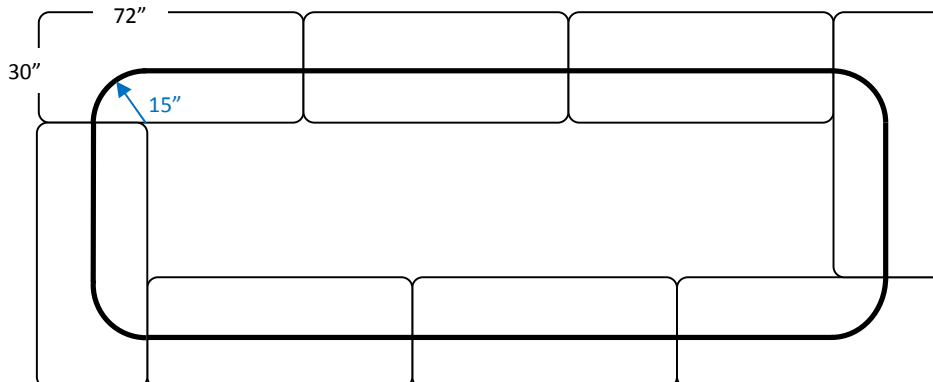
Official Parade Route

Plastic folding tables (30" x 72") will be used for the parade route. Suggested tables can be found on the web at: <http://www.buylifetime.com/Products/BLT/PID-22901.aspx> . You can find the tables at local discount stores like K-mart or Lowe's for around \$50. Note that Robofest Games (www.robofest.net) use the same tables, so you can reuse them. Tables should be placed on the floor on crates without legs.

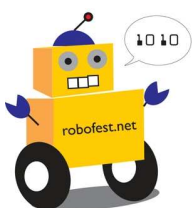
Standard electrical tape (black) is used to make a closed rectangular shape with 4 rounded corners as shown in the picture below. 2" wide masking tape will be used to connect and hold tables.



We are considering the following dimension and shape for the official parade.



The total length of the line around the track will be 14.28 meters or 46' 10 1/4". If the robot moves at the minimum speed limit (4cm/sec), it will take 5 minutes and 57 seconds to traverse the course one time.



The RoboParade is a fun and motivating event to promote cooperation, harmony and creativity. We hope you will be a part of it! For more information on the RoboParade, please contact Tiffany Platt roboparade@gmail.com, 248-204-3569; The event is open to the public and admission is free.



Last updated on 9-7-10