

# 4<sup>th</sup> Annual Thanksgiving RoboParade



**Thursday, November 19, 2009**  
**6:00 p.m. – 8:30 p.m.**

[www.robofest.net](http://www.robofest.net)

**Buell Management Building / Cafeteria**  
**Lawrence Technological University**  
**Southfield, Michigan**

Lawrence Technological University is organizing and hosting the 4th annual indoor Robot Thanksgiving Parade. The parade will feature 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 Thanksgiving parade can be found on the RoboParade home page at <http://www.robofest.net/roboParade.htm>

## 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 30 robot floats in the parade. Register early online at [www.robofest.net](http://www.robofest.net)
- 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 LTU are:
  - **Tuesday, November 17, 6:30 pm – 9 pm**
  - **Wednesday, November 18, 6:30 pm – 9:00 pm**
  - **Thursday, November 19, 6:00 pm – 7:00pm** (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 7:30pm. There will be no exception.

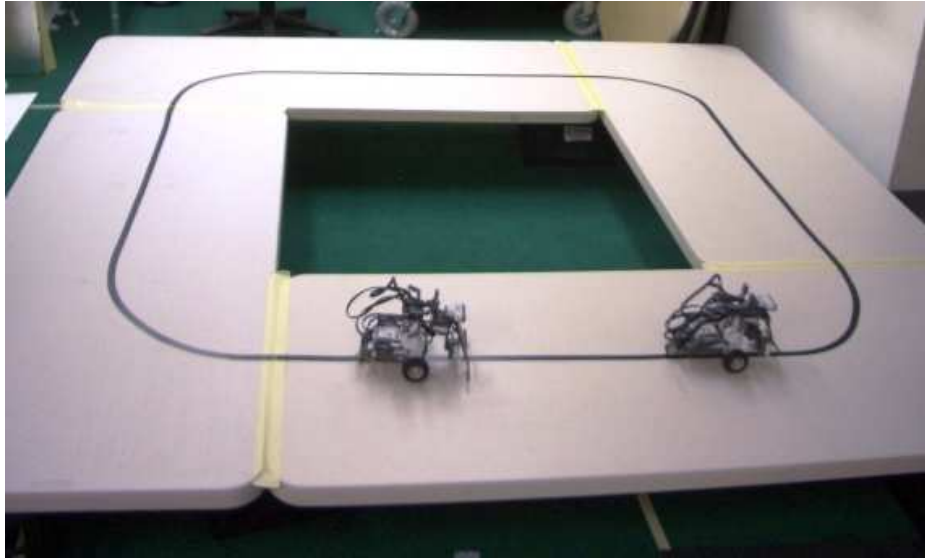
## Robot Requirements

- 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.

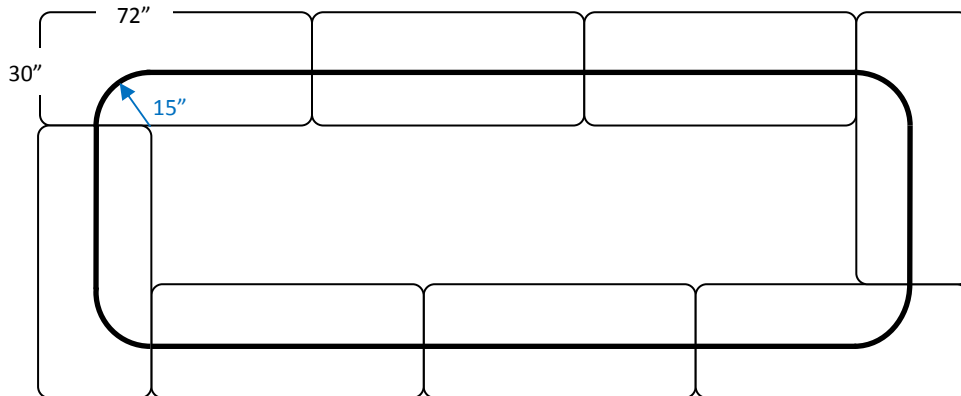
### Official Parade Route

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 \$50.00. Note that Robofest Games ([www.robofest.net](http://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.

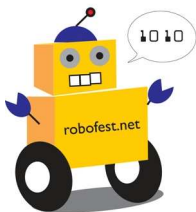


We are considering the following dimension and shape for the official parade on Nov. 19.



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 will be 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](mailto:roboparade@gmail.com), 248-204-3569; The event is open to the public and admission is free.



Last updated on September 30, 2009