



Introducing

RoboFashionShow

In Robofest 2007

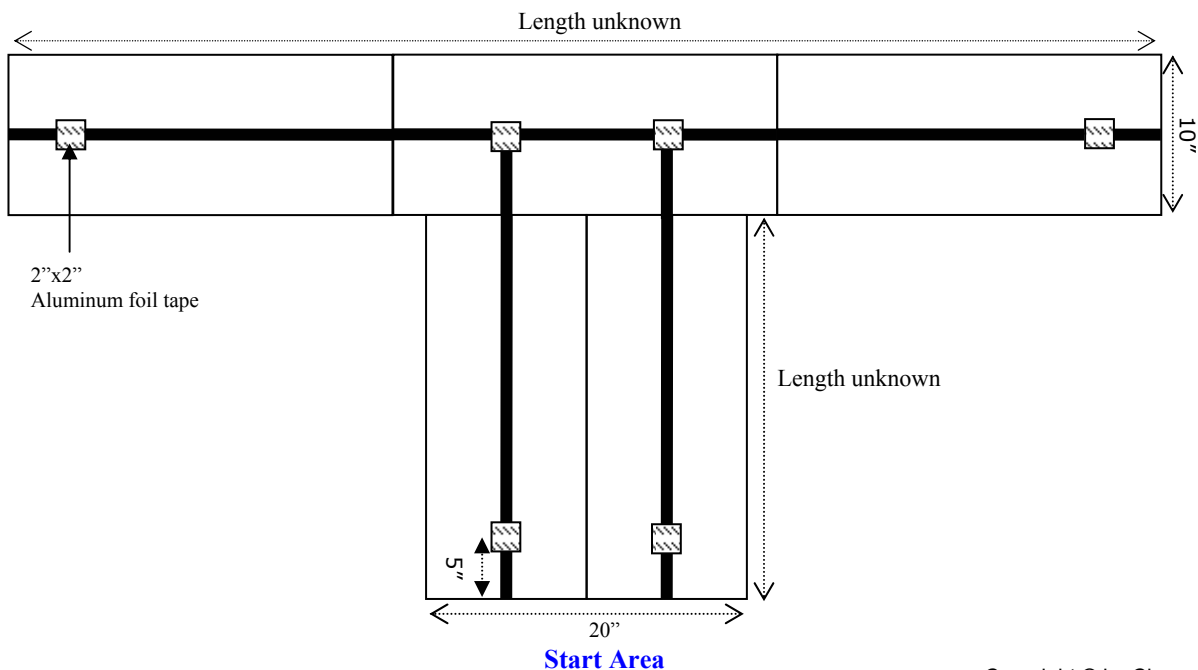
Robofest is pleased to announce a new educational and fun competition category “RoboFashionShow”. Robotics in education creates an innovative and simulating classroom environment, in which students have fun, are excited, and are motivated to learn math, science, and technology. Robotics can also connect classroom lessons to real-world applications. The RoboFashionShow category has been created in order to attract younger students into autonomous robotics.

RoboFashionShow Challenge

A team of robots (two are recommended) will use the whole track (stage) to show off their costume, walk (driving), and performing dancing motions. Robots have one minute to demonstrate their costume to music, the music is the team’s choice. Robots must start from Start Area and may finish at any location. Robots may follow the edge of the boards and do not need to follow the lines.

RoboFashionShow simulates human fashion shows. As a reference for ideas, a bridal fashion show vide can be found at <http://video.google.com/videoplay?docid=3504599566833590400&q=fashion+show>

The stage is made of laminated white multipurpose boards (10” width) with a black line in the middle. The shape and width of stage is known in advance, but the length will remain unknown until the date of the competition. The stage shape will change every competition year. To help with robot localization, 2x2” aluminum foil tape will be placed on the black line and intersections as landmarks. The boards will be placed on 10.5” high crates. Team members are responsible for catching robots that fall off the course. A sample stage shape and dimension for 2007 is below.



Robots specifications

- Number of robots per team: one or more (two are recommended)
- Robot type: any, as long as fully autonomous (no remote control is allowed)
- Robots may not be touched after they are started. If touched, points will be deducted by judges. Human players, however, may use voice, sound, claps, or visible light to signal robots.
- legged robots are welcomed
- Programming language: any
- Number and types of robot controllers, sensors, motors, or parts: unlimited
- Robot shape: human or animal like with arms, tail, and creative costumes
- Size: width should be less than 10". (no limitation on length, height, or weight)
- Each robot is required to carry a small flag with a robot number. The flag will be given on the day of the event.

Robot programming requirements

- Each robot must have a reliable program to follow a black line or edge on a white surface
- The lighting condition of the stage is static but unknown until the day of the competition
- If a team has multiple robots, there must be a method to work together such as the ability to detect member robot in front of it and stop and be able to automatically restart.
- Each Robot is recommended to visit every branch on the stage for getting better judging scores.

Judging

Each team is given a chance to introduce the team members and robots to the audience using the standard Robofest general rule. Truly every team that completes the one minute performance is a winner. As an exciting competition, we will select some winners. Just like the judging of figure staking, a panel of judges will decide winners using various criteria such as robot design, completeness (cover the whole stage or not), reliability (human help or not), technological merit, creativity, artistic choreography and performance, harmony, team work, etc.

Team registration

- Maximum 7 members per team
- 4th – 9th grade students
- Each team must bring everything needed for the show, such as a computer (laptop) to program, electrical cords, music CD or file, etc.