

TU STORM 2004  
A High School Autonomous Robotics Competition

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The TU STORM 2004 competition was designed for high school students for the engineering application of science, technology, and mathematics. The competition was designed for the students to gain experience in calibrating sensors, programming robot controllers, and applying technical knowledge to the autonomous control of robots.

The TU STORM 2004 competition emphasized smart task oriented robotics missions. The 2004 competition showcased four different missions each with its own playing field. Each mission made emphasis on a set of tasks each using a collection of sensors and instruments. Teams scored points when their robots completed a set of tasks for each mission under specific time constraints. Every team was assigned an identical TU designed robot capable of completing each mission. These robots are not remote controlled, but they must be controlled by programs designed by the students.

This paper describes the TU STORM robot design, the different missions, and approaches to solve the individual tasks. TU STORM is designed to be a high energy technological competition to test students' creativity which emphasizes the ability to collaborate with other teams.