



Team Automation & Robotics Student Competition

Outline and Rules

Scope: LAB Midwest, FANUC, and Expo Productions, Inc will conduct a Team Robotics Competition at the Wisconsin Manufacturing and Technology Show held October 5th – 7th, 2021 at Wisconsin State Fair Exposition Center. There will be a virtual awards ceremony on Friday, October 8th for all participants, friends and family.

Contestants and Registration: There will be two divisions: High School and College. Qualified contestants must be a student at a technical college or high school during the fall 2021 term. Contestants will register as a team, and registration must be completed online through LAB Midwest. Teams will register for their preferred time slot, and LAB Midwest will publish the finalized schedule prior to the competition and notify teams of their assigned time slot. Spots are limited; registration is first come-first serve.

Rules: Teams of up to 3 students will have 3 hours to design an automated solution to a proposed manufacturing objective using a FANUC Fenceless CERT Cart LR Mate 6-axis robot with R30iB+ controller. Teams will have to strategize and design a solution, create a flowchart, choose end of arm tooling, program the robot to complete the objective, and then actually operate the robot performing the task. The final operation of the robot will be filmed for the benefit of the judges.

Judging: The judges (industry experts and representatives) will look at the complexity of the program, the success of the operation (on the video), and a number of other factors to determine the winning teams. A full list of judging criteria will be made available to teams who register for the competition.

Prizes: The first-place teams in both divisions will receive a grand prize award for their school. There will be additional awards for second and third place teams in each division. Prizes will be announced as we draw closer to the competition.