

MECHATRONICS

CLUSTER: Manufacturing

PARTICIPATION TYPE: Team of 2

LEVEL: National Contest

CONTEST TYPE: Skilled and Technical Contest

CONTESTANT LIMIT: 2 per Advisor

CONTESTANT TYPE: High School

ELIGIBILITY: Open to active SkillsUSA members enrolled in Mechatronics technology programs as the occupational objective.

MECHATRONICS

The contest requires contestants to understand the new industrial discipline of “mechatronics,” the ability to understand complex systems that integrate various elements in the mechanical, fluid power, and controls domain, combined with the ability to work in a team environment with people of different areas of expertise. Mechatronic specialists must have well developed skills in pneumatic technology, electrical and electronics systems, mechanical systems and general automation techniques and practices, including systematic troubleshooting methods. This competition consists of three events designed to measure the skills required in the modern automated manufacturing environment. Contestants are required to assemble, adjust and test an automated machine system, troubleshoot and repair a faulty machine system and take a comprehensive written test. The contest elements have been designed to be as realistic as possible. Where this program is not yet available, students may compete if they are enrolled in industrial electricity, fluid power technology, programmable logic controls (PLC) technology or industrial automation programs.



The SkillsUSA South Carolina Championships follow the current edition of the SkillsUSA National Technical Standards. These are available to professional members (advisors and teachers) following membership registration. Please check the State Updates that will be posted as received by the Technical Chairs related to changes to the competition related to state level competition.