

Automated Manufacturing Technology



Purpose: To evaluate each contestant's preparation for employment in automated manufacturing and the tea approach to problem solving work environment. To recognize outstanding students for excellence and professionalism in the field of automated manufacturing technology. Technical Competitors.

<p>Contest Location</p>	<ul style="list-style-type: none"> ▪ C-Hall <p>** Contest in A, B, C or D Hall will not be able to leave for lunch, please select "Contestant Plus" when registering or having contestant prepared to purchase lunch with credit card at vendors in the Exhibit Hall.</p>
<p>Special Notes</p>	<ul style="list-style-type: none"> ▪ Exhibit Halls do not open to observers until 12:00 pm. ▪ This contest is work-intensive and time-consuming contest. The 4 hours allotted for this contest is at the minimum adequate. Therefore, it is necessary to be ready to start the contest on time. It is required that your equipment is setup and checked out before the contest starts. You and your instructor may enter the contest area the morning of the contest, before it starts, for the purpose of setting up your equipment and ensuring its service ability. Once you have ensured your equipment is working, you may leave the contest area. ▪ Devices supplied by the technical committee will not be disassembled or opened for any reason unless explicitly directed to do so by the contest official. Disqualification will result if this is not adhered to. ▪ No smart watches and/or phones are permitted during the contest and/or in contest. ▪ No contact with anyone outside of the contest area once the contest begins. ▪ No inappropriate communication between contestants such as verbally degrading another contest. ▪ No cheating on any portion of the contest such as informing another contestant of the skills/test prior to competing.
<p>Testing</p>	<ul style="list-style-type: none"> ▪ N/A
<p>Eligibility</p>	<ul style="list-style-type: none"> ▪ Please refer to the National Technical Standards for this contest.

	<ul style="list-style-type: none"> ○ Schools may send one competitor or team for every 50 paid SkillsUSA members based on local competition enrolled in a program where the scope of the contest described in the SkillsUSA Technical Content Standards reflects a major component of the program. ○ Leadership and Occupationally Related Contest Specifications - The following competitions are open to all members of SkillsUSA Schools may send one competitor or team for every 500 SkillsUSA members based on local competition.
<p style="text-align: center;">Clothing</p>	<ul style="list-style-type: none"> ▪ <u>Work/School Attire</u> – School uniform with all identifying logos/markers covered or appropriate work attire: no tennis or open toe shoes. Shirts cannot have logos, slogans or pictures, school names should be covered, loose fitting clothing must be secure. Safety glasses are required.
<p style="text-align: center;">Provided by Contestant (Tool List)</p>	<ul style="list-style-type: none"> ▪ One copy of a 1-page typed personal resume ▪ CNC Machining Center (Mill) ▪ Control System for Mill (Computer if required) ▪ Table to mount Mill (if Mill is not mounted to a cart, tables for the Mill will not be provided by SkillsUSA Ohio) ▪ Vise and hold downs (stock will be 3" W x 4" L x(tool change(s) will be required. ▪ Dial or Vernier calipers to measure 0" to 4" ▪ Necessary hand tools for your installation including safety glasses (3 pair) ▪ Two computers and software for CAD/CAM program ▪ Backup copies of the software ▪ Empty USB Drive ▪ Computers must be capable of transferring data from one computer to another with a removable media device ▪ One plotter/printer to plot/print CAD drawings and 8 ½ " x 11" paper ▪ Power Strip with enough outlets to connect all your equipment, must be a circuit breaker protected ▪ 25' UL approved extension cord (only one connection to power per team) ▪ Calculator ▪ #2 pencils (sharpened) ▪ Parallels, to position top of stock to a minimum of ¾" above the vise ▪ Edge Finder or equivalent to square vise on Mill

	<ul style="list-style-type: none"> ▪ End Mills, flat, 2 or 4 flute: 1/16", 1/8", 3/16", and 1/4" (tool change(s) will be required)
<p style="text-align: center;">Competition Standards</p> <p>(Not all will be tested but contestant should be knowledge of all)</p>	<ul style="list-style-type: none"> ▪ MFG 1.0 – Perform mathematical and measurement calculations used in automated manufacturing situations ▪ MFG 2.0 – Design, sketch and plan machine work to U.S. National CAD Standards ▪ MFG 3.0 – Create a toolpath (CAM file) and the CNC code to related duty tasks of the National Institute for Metalworking Skills (NIMS) Duties and Standards for Machining Skills, Level I ▪ MFG 4.0 – Perform CNC machining functions given a scenario to the related duty tasks of the National Institute for Metalworking Skills (NIMS) Duties and Standards for Machining Skills, Level I ▪ MFG 5.0 – Perform and inspect part(s) using a Total Quality Management process ▪ MFG 6.0 – Demonstrate safety practices in a working situation to the related duty tasks of the National Institute for Metalworking Skills (NIMS) Duties and Standards for Machining Skills-Level I ▪ MFG 7.0 – Provide an accurate quotation given an automated manufacturing technology simulated scenario
<p style="text-align: center;">Resume</p>	<ul style="list-style-type: none"> ▪ In conjunction with National Standards, violations may result in student loss of contest. ▪ All SkillsUSA Ohio State Championship Contest will require a short interview component. Students should be prepared with basic job interview skills.