

**Missouri
SKILLS USA**

2023

**Automated
Manufacturing
Technology
Skills Contest**

Hosted By **State Technical College of Missouri**

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Skills USA State Competition 2023 Automated Manufacturing Technology Contest

Contest Objective:

This contest is to evaluate contestants in preparation for employment in Automated Manufacturing Technology.

Contest Times & Location:

Secondary Students:

Pre-Contest: 8:00 am – 8:45 am (Wednesday, March 29th, 2022) Nilges Technology Center Building Room 130

Contest: 8:45 am – 11:30 a.m. (Wednesday, March 29th, 2022) Nilges Technology Center Building Room 130

Post-Secondary Student Contest:

Pre-Contest: 12:15 pm – 1:00 pm (Wednesday, March 29th, 2022) Nilges Technology Center Building Room 130

Contest: 1:00 p.m. – 3:45 pm (Wednesday, March 29th, 2022) Nilges Technology Center Building Room 130

Clothing requirement:

Appropriate job related clothing to match industry standards

Leather work shoes to match industry standards

Safety glasses with side shields to be worn at all times thru out contest

(Note: No shorts, open-toed shoes or mid-riffs exposed)

Contest Guidelines

All competing Skills USA team members of the Automated Manufacturing competition@ STC will report to proper location at proper times or be disqualified from competition if tardy.

Competing teams will be composed of three members: A CAD operator constructs the part geometry, a CAM operator to generate tool paths, and the CNC operator will set up and machine the parts.

One person will not dominate a team by doing the CAD drawing, the CAM tool path, or running the CNC machine while using the other members simply as support. Each team member will have only one of the 3 specific tasks to perform.

Teams will have 15 minutes to set-up their computer equipment only prior the official contests start time. Please report the proper location @ proper time.

Teams will be presented with tooling and dimensioned drawings of parts to produce when the competition is scheduled to begin.

The CNC operator will be directed to where they may perform their tool set-up portion of the competition.

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Judges will monitor all portions of the competition.

When teams finish machining parts or time is called, they will present to the judges in a timely fashion: all documentation required for the competition & parts w/ contestant #s written on parts w/ a permanent marker for evaluation.

Materials Supplied by Contestants:

6" caliper (digital or dial)
6" or 12" file
Calculator
Safety glasses with side shields (*to be worn at all times while competing*)
Several pencils
Two computers: One computer loaded with CAD software, One computer loaded with CAM software
Computer Printer
Vise Parallels (full set)
Edge finder
Feeler gages or Shim set
Test indicator w/ 3/8" shank
Soft face hammer
10" adjustable wrench

Materials Supplied by Contest Host:

Vertical Machining Center w/ vise
Machine operating manuals
Part Material for pre-contest & contest
End mills
Paper
2 Flash drives **(to be return to judges upon contest completion)**
Power strip
Tables & chairs

Contest Notes:

Only HAAS machines will be available for the contest. Please visit

A viewing area will be roped off within the contest area. NO ONE will be allowed past this area except contestants, judges, and committee members. Thank you for your cooperation.

If a technical problem should arise w/ any equipment malfunction during the contest, the contestant should notify the acting chairman or a judge. If it is decided from that a malfunction has actually occurred, time will be stopped from that teams allotted time and the malfunction will be reconciled or an alternate piece of equipment will be used for the time that is remaining for the contestant.

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