

**Missouri  
SKILLS USA**

**2022**

**Automated  
Manufacturing  
Technology  
Skills Contest**

Hosted By **State Technical College of Missouri**

## **Skills USA State Competition 2022 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, April 6th, 2022) Nilges Technology Center Building Room 130

Contest: 8:45 am – 11:30 a.m. (Wednesday, April 6th, 2022) Nilges Technology Center Building Room 130

#### **Post-Secondary Student Contest:**

Pre-Contest: 12:15 pm – 1:00 pm (Wednesday, April 6th, 2022) Nilges Technology Center Building Room 130

Contest: 1:00 p.m. – 3:45 pm (Wednesday, April 6th, 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@ LSTC 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.

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  
One page, typewritten resume (due at Pre-Contest meeting)  
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.