

SkillsUSA Events for

Computer Aided Drafting and Design (CADD)

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- Additive Manufacturing
- Automated Manufacturing
- Architectural Drafting
- Technical Drafting
- Precision Laser Imaging* —limited demo

**This event is a limited demo by invitation only.*

***FOR FULL CONTEST OUTLINES, PLEASE REFER TO THE STATE OR NATIONAL STANDARDS.**

***NATIONAL STANDARDS CAN ONLY BE ACCESSED BY INSTRUCTORS WHO HAVE A CURRENT PROFESSIONAL MEMBERSHIP.**

Contest Name:	Additive Manufacturing
Shop Alignment:	CADD or Engineering
Eligibility:	All Students
Contest Type:	Team of 2 Students
In-House Competition:	YES
District Event:	YES—written test
State Event:	YES—skill based
National Event:	YES—written, interview, and skill components

FOR FULL CONTEST OUTLINES, PLEASE SEE YOUR SHOP INSTRUCTOR OR SKILLS ADVISOR.

Official Contest Description:

“Additive manufacturing embraces a wide range of materials and derivative processes building parts suitable for end-use service. The virtually unlimited design freedom enabled by additive manufacturing allows the creation of shapes and the integration of feature and function that previously required subassemblies. Employment opportunities for creative individuals are growing while industry adopts AM methods. Ready access to workstations and service providers makes the Internet a growing marketplace for public AM gadgets” (“Contest Descriptions”).

Advisor’s Note: On the state level, this contest requires a team of two students to develop a project using additive manufacturing skills. Students bring their project to the state conference where they present it to a team of judges. They are then tasked with improving the existing design and judged on their ability to do so.

Source: “Contest Descriptions.” SkillsUSA, www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/.

Contest Name:	Automated Manufacturing Technology
Shop Alignment:	Machine Technology, Engineering and CADD
Eligibility:	All Students
Contest Type:	Team of 3 Students, one CADD operator and two machinists
In-House Competition:	YES
District Event:	YES—written test
State Event:	YES—skill based
National Event:	YES—written, interview, and skill components

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Official Contest Description:

“The contest evaluates teams for employment in integrated manufacturing technology fields of computer aided drafting/design (CAD), computer aided manufacturing (CAM), and computer numerical controlled machining (CNC). CAD operators construct the part geometry; the CAM operator generates the tool paths; and the CNC operator sets up and machines the part. Plotting is not a scored event; however the contestants must be able to generate a plot file that will be used to send their data to the plotter.”

Source: “Contest Descriptions.” SkillsUSA, www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/.

Contest Name:	Architectural Drafting
Shop Alignment:	CADD
Eligibility:	All Students
Contest Type:	Individual
In-House Competition:	Yes
District Event:	Yes
State Event:	YES—skill based
National Event:	YES— written skill and career readiness assessment, skill component, and interview.

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Official Contest Description:

“Contestants will use their drafting skills to solve an architectural problem. The problem includes a written test, a hand sketch, and drawings that are either computer-generated or board drafted. If board drafting, contestants must bring all of the necessary equipment. The contest tests the contestants’ problem-solving abilities, not simply CAD skills” (Contest Descriptions).

Source: “Contest Descriptions.” SkillsUSA, www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/.

Contest Name:	Technical Drafting
Shop Alignment:	CADD
Eligibility:	All Students
Contest Type:	Individual
In-House Competition:	Yes
District Event:	Yes
State Event:	YES—skill based
National Event:	YES— written skill and career readiness assessment, skill component, and interview.

FOR FULL CONTEST OUTLINES, PLEASE SEE YOUR SHOP INSTRUCTOR OR SKILLS ADVISOR.

Official Contest Description:

“This contest evaluates contestant’s preparation for employment and recognizes outstanding students for excellence and professionalism in the field of technical drafting. The contest will focus on the solution of industry-developed problems by applying appropriate technical drafting skills and tools including computer-aided drafting (CAD)” (Contest Descriptions).

Source: “Contest Descriptions.” SkillsUSA, www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/.