



Skills USA

AMT Contest

4-20-26

Stage #1
CAD

Stage #2
CAM

Stage #3
CNC

Stage #1 CAD

CAD Contestant will Create a Model and a Blueprint with enough instructions to recreate the Model. Once a Model has been completed the Cad and Blueprint files must be saved with the contestant #, part #, and Rev # (Ex. 5071_10_Rev1.stp) as the name of the file so that it can be identified. Then it must be submitted to the judges for scoring before it can be given to the CAM Contestant. Once the CAD file has been submitted, the file can be started in CAM. There are two different parts in this contest and a student can submit files one at a time or all at once. Contestants are allowed (1) revision of their submitted files for scoring. Each time the Model file is presented for scoring it will override the previous submission. There can only be one contestant for the CAD Position.

Stage #2 CAM

CAM Contestant will begin to Create tool path for the CAD model once judges have the CAD file and return the USB. Once the CAM tool paths have been completed, it must be saved with the contestant #, part #, and Rev # (Ex. 5071_10_Rev1.txt) as the name of the file so that it can be identified. Tool path file(s) must be submitted to judges before it can be given to the CNC. There are two different parts in this contest and contestants can bring files one at a time or all at once for scoring. Contestants are allowed (1) revision of their submitted files for scoring. Each time the tool path file is presented for scoring it will override the previous submission. There can only be one contestant for the CAM Position.

Stage #3 OPERATOR

Once the Judges have a parts Tool Path file, it may be given to the CNC to set up and run in the simulator. Once the operator is finished setting up the simulator, they will call for a judge to come score their process. There are two different parts in this contest, contestants may call a Judge for a CNC check once they are ready. Contestants are allowed (1) revision check of their CNC for scoring. There can only be one contestant for the CNC Position.

MATH PROBLEM

The math problem portion of the contest may be completed by any of the contestants and once completed, will need to be submitted for scoring.

Lunch and Contest Conclusion

Midway through the contest we'll break for lunch for 30 min. at 11:30am and lunch will be outside of the contest area. During lunch there will be no working on the contest. At Noon the contest will resume until completion. During the contest if a student needs to go to the restroom, they will need to notify a Judge unless of course it is an emergency. Using a phone during the contest is prohibited and during a restroom break it is discouraged unless it is an emergency to help maintain the integrity of the contest.

Upon the completion of the contest contestants will turn in all files on the provided USBs for final scoring and may remain in the contest area for a Debriefing of the contest.

Contestant Provided Items

Computer/Laptop for each station of contest, Calculator, Machinery's Handbook, Pen and Paper

Contest Provided Items

USB for file transfers, power outlet for computer/laptop, software links necessary for contest.

Software instructions and download instructions are provided below

Installing Intelitek Software (Install CNC Base for Competition)

<http://www.intelitekdownloads.com/downloads.php>

Open the link above and then follow the link below.

<https://youtu.be/Xz1iiFTcFkY>

Use this link to learn how to setup and use the Intelitek CNC Base software.

<https://youtu.be/GLR2F8i5E5A>

Tutorial of the Vericut software that will be used for post processor code verification.

Downloadable files are in the description of the video.

<https://youtu.be/WGRgW3PScKs?si=up-qmSPucNf35YLK>

Champion
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2025 - 2026