



# 2025 Precision Machining Competition Rules

**PLEASE READ AND FOLLOW ALL RULES: FAILURE TO DO SO CAN RESULT IN DEDUCTION OF POINTS OR DISQUALIFICATION.**

## Who May Enter

Any student in a manufacturing technology education class or accredited metals class (e.g. cooperative education extended campus) in a public or private high school may enter the TMA Precision Machining Competition. All projects must be the individual work of the students. The instructor's participation is restricted to guidance and supervision of the student's selection, planning and implementation of the project. The project must have been completed during the 2024-2025 school year.

## Registration

Registration forms must be received no later than **March 14, 2025**. Photocopies of registration forms are acceptable. **Each student may register and enter no more than two projects in the competition.** Instructors must submit by school using the provided excel file for their students' submissions. As needed, individual student registration forms can be submitted by request.

Project numbers will be assigned and sent to the instructor upon receipt of the registration form. **All projects must have the project number stamped, etched or engraved per print specifications. Projects with tags not acceptable.** Projects with no identification will not be judged.

All submitted entries must be fully completed per the print to be eligible for the competition. Any parts not fully completed will not be judged or entered into the competition. Should TMA receive an uncompleted project, we will contact the school. TMA can still display an uncompleted project at the Awards Night; however, no participation prize will be given.

## Specifications and Blueprints

Projects must comply with the blueprints. Materials and surface finishes are specified in the project prints. Surface treatment—including but not limited to plating, anodizing, chrome, black oxide, etc.—is not permitted *and will cause points to be deducted during judging*. Polishing and heat treating are permitted but are not graded features. However, overall quality of work may be evaluated for scoring purposes. All machinery must be manually operated (use of CNC only allowed where specified). **All projects are to be machined and programmed individually by the student. Production of pre-programmed projects is strictly prohibited and could result in disqualification.** Instructors requiring clarification of print specifications are encouraged to call the TMA Education Department.

## CNC Projects

Students who choose to enter projects in the CNC Intermediate or CNC Advanced divisions **MUST** create their own program. Failure to do so will result in disqualification from



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the competition. TMA has the right to request proof of the students' written program at any time. However, students are not required to submit this with their project.

### **CNC CAM Projects**

Students who choose to enter projects in the CNC CAM categories must draw, program, post, and machine their own part individually. TMA has the right to request proof of the students' program at any time. However, students are not required to submit this with their project. Any CAM software may be used. The machined part will be judged.

### **NIMS Combination Projects**

NIMS Combination Projects consist of **two** separate workpieces, the prints for which have been approved by the National Institute for Metalworking Skills (NIMS) as each meeting one of the seven credentials in Level 1 machining standards.

### **Team Based Challenge Projects**

All team-based challenges shall consist of teams of 3-5 students. Students can only commit to one team each year. Any student who participates in a team project submission will not have their team project be counted against their two allowed maximum project submissions (regarding all other PMC projects). Meaning a student can submit two PMC projects in addition to a team project.

TMA is currently working to get this project approved by ISBE as an official Team based challenge so schools can leverage the project when applying for their College and Career Pathway Endorsement.

### **Delivery Deadline**

Projects must be delivered to TMA, 1651 Wilkening Rd., Schaumburg, IL no later than **4:30 p.m. on April 07, 2025**. Personal delivery or tracked shipping is recommended. TMA is not responsible for entries lost during mailing or shipping and will not accept projects after that date. Projects will be returned to instructors at the awards ceremony.

### **Judging**

Judging will be on the basis of criteria developed by the TMA Precision Machining Competition panel of judges. Judging is closed to the public. **Judges' decisions are final.** TMA judges are industry professionals applying print reading skills and measurement skills on a daily basis.

### **Awards**

Awards will be presented to the winning first, second and third place students. TMA reserves the right to omit a prize for any project not meeting the minimum requirements. In the event of a tie, prize amounts will be distributed equally among winning projects. Instructors will also be recognized for outstanding contributions to the advancement of the



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metalworking industry. All prizes will be awarded at the Precision Machining Awards Ceremony held further details are TBD in **May 2025** (details will be forthcoming). **Students must be present at the awards ceremony to receive their prize.**

### Project Exhibition

All projects will be exhibited at the PMC Awards Ceremony (date and location are TBD). The Awards Ceremony is open to the public, and students are encouraged to invite family and friends. Projects not picked up at this time will be returned to the school.

Questions? Contact the TMA Education Department by phone at 847-849-5334 or by email at [education@tmailinois.org](mailto:education@tmailinois.org)

### IMPORTANT DATES IN 2024

Registration deadline	<b>Friday, March 14, 2025</b>
Project delivery deadline	<b>Monday, April 07, 2025</b>
Awards Presentation	<b>May TBD, 2025</b>