Official Rules of the

SVMA

2026 High School
Tic Tac Toe Manufacturing Challenge

RULES

The official rules for the **2026 High School Tic Tac Toe Manufacturing Challenge** are categorized into Eligibility and Participation, Project Requirements & Deliverables, and Technical Specifications:

Eligibility and Participation

- **Student Status:** Only **high school students** from schools throughout the region are eligible to participate. Students must register at https://sacvalleymfg.org/2026-high-school-manufacturing-challenge/
- **Team Structure:** There are no teams. Each project should be **individual**, with **one project** per student allowed.
- **Work Authenticity:** All **design, programming, and fabrication** must be conducted solely by the student. Industry mentors are only permitted to assist with equipment setup and validation.
- **SME Membership (optional but highly encouraged):** Students should register as a member of the **Society of Manufacturing Engineers (SME)**, which is **free for high schoolers**. https://www.sme.org/sme-membership/sme-membership-levels

Project Requirements & Deliverables

To be considered for judging, participants must submit:

- **A Complete Set:** This includes one board and **10 pieces** (two different designs with 5 pieces each), totaling 11 pieces.
- **Technical Documentation:** This must include detailed **drawings and a bill of materials**.
- **Simple Report:** A written report of **one to two pages** is required.
- **Presentation:** On the day of the event, students must present their technical summary and finished parts to the judges.

Technical Specifications

- **Size Limits:** The entire project must fit within a **6.5-inch (16.5 cm) cube** (X, Y, and Z dimensions).
- **Materials:** You may use metal, wood, plastic, paper, or fabric, and **mixed media** is allowed. *Note: Metals projects will be judged separately from non-metals projects this year.*
- **Required Processes:** At least **one subtractive process** must be incorporated (e.g., grinder, dremel, file, laser, plasma, mill, lathe, saw, drill, punch, scissors, etc.)
- **Other Processes:** Any other methods, such as **3D printing or casting**, are allowable.
- **Hardware and Electronics:** Any hardware (magnets, bearings, screws, etc.) is fine to use. While **electronics are not required**, they are encouraged.

MENTORING

In partnership with the SME Sacramento Valley Chapter, SVMA provides dedicated mentoring and support throughout this process. Students seeking guidance or technical assistance can book a 15-minute virtual consultation via Google Meet at this link: https://calendly.com/sme-sacramento-valley/15min

DEADLINES AND EVENT LOGISTICS

- **Registration:** Must be completed by **March 1st, 2026**.
- **Event Date:** The challenge takes place on **March 14, 2026**
- **Event Location:** Citrus Heights Event Center, 6300 Fountain Square Dr, Citrus Heights, CA 95621.

SCHOLARSHIPS & AWARDS

The SVMA Tic Tac Toe Manufacturing Challenge offers several scholarship categories and awards for participants and their programs:

Student Scholarship Categories

Top-performing students can earn scholarships in the following categories:

- Best Overall: $1,000 scholarship
- Most Innovative Design: $500 scholarship
- Best Technical Documentation: $500 scholarship
- Most Complex Approach / Processes: $500 scholarship
- People's Choice: $500 scholarship (voted on by students)
- Coolest Electronics: $500 scholarship
- Most Artistic: $500 scholarship

Program Awards

- Mentor of the Year: A $2,500 award is available for a teacher or their program.

Participation Rewards

- Every participant who submits a project will receive a swag bag containing various tools and items, including a ruler, caliper, tape measure, micrometer, safety glasses, charts, a tote bag, and a shirt.