SkillsUSA Events for

Engineering Technology

- Engineering Technology/Design
- Principles of Engineering/Technology
- Urban Search and Rescue
- Robotics and Automation
- Mobile Robotics
- 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: Engineering Technology/Design

Shop Alignment: Engineering

Eligibility: All Students

Contest Type: Team of 3 students

In-House Competition: As needed based on student interest

District Event: No

State Event: YES—career readiness written test and demonstration

National Event: YES—career readiness written test and demonstration

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

Official Contest Description:

“A team of three students demonstrates their ability to design an innovative engineering project and present those ideas along with a display and live model. During the presentation, students are judged on their performance as a professional team, presentation of their project to a panel of judges from the engineering field, their storyboard presentation model, and the overall effect of the presentation” (Contest Descriptions).

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<thead>
<tr>
<th>Contest Name:</th>
<th>Principles of Engineering/Technology</th>
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<tr>
<td>Shop Alignment:</td>
<td>Engineering</td>
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<td>Eligibility:</td>
<td>All Students</td>
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<td>Contest Type:</td>
<td>Individual</td>
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<td>In-House Competition:</td>
<td>As needed based on student interest</td>
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<tr>
<td>District Event:</td>
<td>No</td>
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<tr>
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<td>YES—career readiness written test and presentation/research</td>
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</tr>
</tbody>
</table>

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Official Contest Description:

This event “evaluates contestants’ understanding of basic technical concepts/principles of the applied sciences and ability to demonstrate and explain the concept/principle in action and application. Any technical concept may be demonstrated, provided it is related to the principles of technology curriculum and incorporates basic principles of the applied sciences” (Contest Descriptions).

Contest Name: Urban Search and Rescue

Shop Alignment: Electronics/Engineering

Eligibility: All Students

Contest Type: Team (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:

The purpose of this event is “to evaluate team members’ skills and preparation for employment in fields related to and including robotics, engineering, automation, manufacturing, electronics, and emergency services. To recognize outstanding performance by participants in scenarios that require problem solving and teamwork in a real-world situation” (Contest Descriptions).

Contest Name: Robotics and Automation Technology

Shop Alignment: Electronics or Engineering

Eligibility: All Students

Contest Type: Team (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:

This event “challenges two-person teams to demonstrate operation of a five-axis servo-robot along with a set of sensors and motorized devices to resolve a simulated production process problem. Teams set up and demonstrate operation of a robotic work cell from a word problem. Contestants are required to create a flow chart and sequence of operation. Teams are also judged on efficiency, speed and teamwork” (Contest Descriptions).

Contest Name: Mobile Robotics Technology
Shop Alignment: Electronics
Eligibility: All Students
Contest Type: Team Event (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:

“The contest will test the ability to perform, exhibit and compile skills and knowledge from the following list of competencies determined by the SkillsUSA Mobile Robotic technical committee. It will evaluate each contestant’s preparation for employment in the field of robotics with emphasis on the team approach to problem solving in a work environment” (Contest Descriptions).