



26-27 HS Rulebook

High School Unique to Texas Projects

High School Unique to Texas Projects (UTE-Projects) are events that are unique to the state of Texas and can be competed at the regional and state level.

Projects can be completed either individually or as a team. When registering the project for the Regional Competition, the project will be registered to one student of a team.

Regions may enter up to 5 projects for each UTE-Project event.

If students ONLY have events in this category, they may register as a virtual competitor and attendance is not required.

Students are responsible for reviewing and following the general rules and guidelines established in the:

- General Rules and Regulations
- Copyright Policy
- Student Uniqueness of Work Policy/AI Policy
- Required Documentation

These rules and requirements may be modified at the regional levels to accommodate for space and time constraints, check with your region for more details.

IMPORTANT - Ignorance of the rules and/or misunderstanding of the rules as run at the state conference is not an excuse for a protest or additional consideration.

Applied Technical Science

These events are designed for students learning about the practical application of science and technology. All projects must include the required documentation and refer to the High School Event Guidelines for submission directions.

Section 4.0 Displays and Portfolios

Items in this section involve projects displaying and explaining the information a student a student has researched about the topics. The project should be suitable to be used as a teaching aide about the subject. Use of AI applications are prohibited. The displays footprint will not exceed 24"x36".

Use of AI will result in disqualification of entry.

Documentation for these events must include:

- Texas TSA Documentation form

Aerodynamics

Event

Details

Event #

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Display of the Principles or Mechanics of Flight	HP40000
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Biotechnical

Event	Details	Event #
Portfolio of Biotech Health		HP40100
Display of Biotechnical Research or Applications		HP40101

Construction & Material Science

Event	Details	Event #
Display of Construction Products, Processes or Techniques		HP40200
Display of a Construction Structure		HP40201
Display Illustrating the Differences of 2 or More Types of Structures		HP40202
Display of Materials Testing		HP40203

Electronics

Event	Details	Event #
Display of Electrical Energy Storage Device		HP40300
Display of Electronic Communication System or Device		HP40301
Display of Properties of Electrical Components, Semi-Conductor or Non Semiconductor		HP40302
Display of Robotic Applications		HP40303

Energy and Power

Event	Details	Event #
Portfolio of a Comparison Study of Power Efficiency	Based on Test Results of Electrical Usage of at Least 5 Different Items	HP40400
Display of Solar Energy		HP40401
Display of Electrical Energy and/or Power Generation		HP40402
Display of Hydraulics or Pneumatics		HP40403
Display of Fuel Resource, Exploration, Extraction, Processing & Utilization		HP40404
Display of the Generation of Electrical Energy from an Energy Source	Fossil, Nuclear, etc.	HP40405

Display of a Power Grid	Conversion and Transmission of Energy Sources to Electrical Power	HP40406
Display of External/Internal Combustion Engines Operation and Utilization		HP40407

Manufacturing

Event	Details	Event #
Display of an Organization Chart for a Manufacturing Company Including Job Descriptions		HP40501
Display of 5 or More Production Career Opportunities		HP40502

Multidisciplinary

Event	Details	Event #
Display of Cross-Curricular Learning Activities for 2 or More School Disciplines		HP40600

Transportation

Event	Details	Event #
Display of a Career in the Transportation Field		HP40700
Display of a Transportation Method	Highway, Railway, Air, Water, etc.	HP40701

Section 4.1 Models and Prototypes

Items in this section involve projects in which students create a model or prototype.

Definitions:

Model - a visual or conceptual representation used to show how something specifically works, typically done to scale

Prototype - working, functional project built to specifically test performance and usability.

The displays need to have a footprint not exceeding 24"x36".

Documentation for these events should include:

- Texas TSA Documentation form
- Bill of Materials Form
- CAD drawings and/or Schematics of designs

Aerodynamics

Event	Details	Event #
Airfoil Testing for Automobiles, Airplanes, or Rockets		HP41000

Electronics

No kits allowed

Event	Details	Event #
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Residential Wiring Mockup	HP41100
Prototype of Alarm Circuits	HP41101
Prototype of an Audio System or Communication Device	HP41102
Prototype of Electronic Games/Toys (non-kit)	HP41103
Prototype of Logic Circuits	HP41104
Prototype of an Electronic Device	HP41105

Robotics

Event	Details	Event #
Robotic Programming any Computer Based Program	C++, Java, etc.	HP41200
Robot Using 2 Sensors & Only 1 Controlling Unit		HP41201
Robot Using 3 or More Sensors & Only 1 Controlling Unit		HP41202
Robot Contest Display	This is display to showcase a robot that competed at a robotics competition during the current school year. Example competitions would be FIRST, BEST, or RECF. The display should showcase both the design process and performance at competition. Engineering Notebook must be a part of the display. Due to size limitations, the robot can be represented via photos on the display.	HP41203