



Texas Technology Student Association - Work-Based Learning and Expanded Learning Opportunities

Program of Study: Programming and Software Development

Career Cluster: Science, Technology, Engineering, and Mathematics

| Classification of Competitive Event | Name of Event | Classification # | Link |
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| National Qualifying Events | Animatronics | | https://tsaweb.org/competitions-programs/tsa/high-school-competitions/1 |
| | Coding | | https://tsaweb.org/competitions-programs/tsa/high-school-competitions/1 |
| | Data Science & Analytics | | https://tsaweb.org/competitions-programs/tsa/high-school-competitions/1 |
| | Software Development | | https://tsaweb.org/competitions-programs/tsa/high-school-competitions/2 |
| | Systems Control Technology | | https://tsaweb.org/competitions-programs/tsa/high-school-competitions/2 |
| | VEX Robotics Competition | | https://tsaweb.org/competitions-programs/tsa/high-school-competitions/2 |
| | Video Game Design | | https://tsaweb.org/competitions-programs/tsa/high-school-competitions/2 |
| | Virtual Reality Visualization (VR) | | https://tsaweb.org/competitions-programs/tsa/high-school-competitions/2 |
| | Webmaster | | https://tsaweb.org/competitions-programs/tsa/high-school-competitions/2 |
| Unique to Texas On-Site Events | Graphic Solutions - Information Technology | HU315 | https://texastsarulebook.org/unique-to-texas/graphic-solutions |
| Unique to Texas Projects | | | |
| <i>Multimedia & Animation</i> | Computer Generated Graphic Art - single page - Color | HP6131 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Computer Generated Graphic Art - single page - Black/White | HP6132 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Computer Generated Graphic Art - multiple page - Color | HP6133 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Computer Generated Graphic Art - multiple page - Black/White | HP6134 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |

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| | Computer Generated Original 3D Sci-Fi Image | HP6135 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Computer Generated Original 3D Transportation | HP6136 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Computer Generated Original 3D - Not mentioned above | HP6137 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Computer Generated Original Drawing Or Painting - Black/White (Paint Program) | HP6138 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Computer Generated Original Drawing or Painting - Color (Paint Program) | HP6139 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| 2D Animation | 2D animation w/ sound and/or lip sync - 30 sec max | HP6145 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 2D animation - 30 sec max | HP6146 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 2D animation w/o sound - 30 sec max | HP6147 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 2D animation - 3 min max | HP6148 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 2D Animation - Open - 5 min max | HP6149 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 2D Animation - 15 sec (precisely 15 sec) | HP6150 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 2D Animation - 30 sec (precisely 30 sec) | HP6151 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 2D Animation - 60 sec (precisely 60 sec) | HP6152 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 2D Animated Commercial - 15 sec precisely | HP6153 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 2D Animated Commercial - 30 sec precisely | HP6154 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 2D Animated Commercial - 60 sec precisely | HP6155 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Generated a Morphing Image | HP6156 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 3D Animation | 3D animation - Introduction (ex. Spinning Logo) | HP6160 |
| 3D animation - Sci-Fi - 60 sec max | | HP6161 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| 3D animation - time-lapse - 60 sec max | | HP6162 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| 3D animation - open - 3 min max | | HP6163 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |

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| | 3D Animation - 15 sec (precisely 15 sec) | HP6164 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 3D Animation - 30 sec (precisely 30 sec) | HP6165 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 3D Animation - 60 sec (precisely 60 sec) | HP6166 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 3D Animated Commercial - 15 sec precisely | HP6167 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 3D Animated Commercial - 30 sec precisely | HP6168 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | 3D Animated Commercial - 60 sec precisely | HP6169 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Human or Animal 3D Animation - 60 sec max | HP6170 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| <i>Webpage Designs</i> | Webpage Design - Individual webpages | HP6180 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Webpage Design - School-related webpage | HP6181 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Webpage Design - Commercial-related webpage | HP6182 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| <i>Other</i> | Video Game Design 2D | HP6183 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Video Game Design 3D | HP6184 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Computer Assisted Tutorial to teach a subject or software | HP6185 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Computer Based Training - Develop an interactive training module | HP6186 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Use a programming language to make a text based interactive program | HP6187 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| | Use a programming language to make a graphic based interactive program | HP6188 | https://texastsarulebook.org/high-school-category-projects/multimedia-and-animation |
| <i>Applied Technical Science</i> | Robotic Programming (must have printout of program with entry) teach pendant method | HP8094 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| | Robotic Programming (must have printout of program with entry) any computer based program (C++, Java, etc.) | HP8095 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| | Robot using two sensors & only 1 controlling unit | HP8096 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |

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| Robot using 3-4 sensors & only 1 controlling unit | HP8097 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| Robot using 3-4 sensors & 2 or more controlling units | HP8098 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| Robot using 5 or more sensors & only 1 controlling unit | HP8099 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| Robot using 5 or more sensors & 2 or more controlling | HP8100 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| Static display of a robotic application that moves materials/parts for delivery to an assembly line or inventory area | HP8101 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| Static display of a robotic application that welds materials or assembles parts for a product | HP8102 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| Static display of a robotic application that involves working with a hazardous material or safety application | HP8103 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| Static display of a robotic application not mentioned above | HP8104 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| B.E.S.T. Robot Display | HP8105 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| F.I.R.S.T. Robot Display | HP8106 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| F.T.C. Robot Display | HP8107 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| VEX Robot Display (not the TSA NQE VEX event) | HP8108 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| Other robot system application not listed above. The display must include photos and/or DVD of the robot in action at actual event. | HP8109 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |
| Remote Operated Vehicle Display (Underwater Robotic R.O.V.) | HP8110 | https://texastsarulebook.org/high-school-category-projects/applied-technical-science |