



**INTERACTIVE APPLICATION
AND
VIDEO GAME DEVELOPMENT**

PURPOSE

To evaluate each competitor's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of interactive application and video game creation.

ELIGIBILITY (TEAM OF TWO)

Open to a team of two active NYS SkillsUSA members enrolled in programs focused on creating interactive applications and/or video game design and development as occupational objectives. Up to four additional students from the same school and program may assist the team, as long as they are properly credited per the instructions below under section 2 of "Equipment and Materials."

CLOTHING REQUIREMENTS

NYS SkillsUSA Business Professional

- White polo shirt (plain or with SkillsUSA or SkillsUSA NY monogram) or White dress shirt with plain black tie with no pattern or a SkillsUSA black tie, or business like white collarless shirt or white shirt with small plain collar.
- Black dress slacks (accompanied by black dress socks or black or skin-tone seamless hose) or black dress skirt (knee-length, accompanied by black or skin-tone seamless hose).
- Black leather shoes that are not backless or open toe

**Note: Contestants must wear their contest clothing to the contest orientation meeting.
Also bring #2 pencil, resume, and safety assurance form.**

EQUIPMENT AND MATERIALS

1. Supplied by the technical committee:
 - a. Space for team prototypes. Each team will be allotted at least one six-foot (6') or one half of an eight-foot (8') conference table, based on availability, and two chairs to share among team members.
 - b. A 110-volt electrical outlet.
 - c. Written knowledge exam and pencils.

Note: No internet access will be provided or allowed during the competition.

2. Supplied by competitors:

Important: State and school identifiers should not appear on competition submissions with the exception of the hard-copy affidavit and resumes. At the competition orientation and/or setup/check-in, teams must turn in affidavit, resumes, Design Document (DD) and two videos as described below. Teams should also be prepared to show proof of licensing for all software used.

- a. A working sample or prototype of an interactive application or video game (the Game), including all source files and any necessary software and hardware needed to demonstrate it. If different from the target playback platform, teams should also bring a computer capable of reading and displaying their prototype from their source files (for backup only).
- b. A backboard, artwork, and/or collateral to enhance the display, presentation, and “marketing” of the prototype.
- c. One 6' multiple-outlet surge protector.
- d. A loose-leaf affidavit signed by all team members on 8.5"x11" paper, countersigned by their school's administrator and instructor or SkillsUSA advisor, stating the team submission is original work created by the team members during the current school year. Credits for any students assisting with the project should be listed along with details of the work they performed.
- e. A **Design Document (DD)** organized into a single Adobe PDF file, formatted in 8.5"x11", portrait orientation, using 12-point font and entitled “**DD – Team XXXX**”. Here are the required sections of the DD, with section titles to be used in bold:
 - 1.) A one-page type-written **Overview** describing the Game or interactive application, including the title, a summary, description of the target audience, main selling points, any competitive or inspirational game titles, estimated total playtime, and measured performance metrics on the Game.
 - 2.) A one-page **SWOT** analysis table listing the primary Strengths, Weaknesses, Opportunities and Threats for the Game.
 - 3.) Completed **Concept Artwork** and/or the storyboard used to develop the Game. Shrink to fit, if needed, and submit between four to six (4-6) pages max.
 - 4.) **Code Examples** of the highest quality and complexity of programming developed for the Game, between two to four (2-4) pages, formatted in 8.5"x11.” If a computer language was used, code should be single spaced in 12 pt font. If visual programming was used, submit screen captures of visual programming diagrams.

- f. Two video submissions
 - 1.) The first digital video should be three to four (3-4) minutes long and entitled “**Intro Video - Team XXXX**”, where the competitors should introduce themselves and any students from their program who assisted them (by name only, careful not to reveal your school or state), detailing each person’s role in the development process. Then, in the same video, one team member, acting as spokesperson, should give a quick overview of the game or interactive application, including its title, genre, target audience, how many levels, total approximate playtime developed, performance metrics, and any notable user interfaces (opening, closing screen, cut scenes, etc.).
 - 2.) The second digital video should be thirty (30) seconds to one (1) minute long and entitled “**Trailer Video - Team XXXX**” pitching the game or interactive application, demonstrating and describing what is best about it, including gameplay, mechanics, significant objects or characters, levels, artwork, backgrounds, sound, with a focus on why the audience would want to play the Game. Think of this as an advertisement designed to drive player acquisition.
- g. All competitors must create a one-page resume to submit online. See “Resume Requirement” below for guidelines. Competitors must also bring a hard copy of their resume to the competition.

Note: The DD and digital videos should be tested in advance on WIN and MAC computers to ensure they are viewable on readers/players included with those operating systems.

Content may be submitted to other competitions or events. NYS SkillsUSA’s photographic and sound release will apply to the use of imagery and content from submissions for marketing and nonprofit outreach.

Note: Computers must be preloaded with fully licensed editing software and competitors must have administrative rights to the computers to implement changes if required. All software should be pre-installed and tested prior to arriving at the competition to ensure the system has permission settings to connect to the internet outside of the school’s network. Internet access may be available only on a 5GHz band. Please ensure your device for the competition can connect to a 5GHz band or, if applicable, bring an appropriate 5GHz adaptor.

RESUME REQUIREMENT

Competitors must create a one-page resume to submit at orientation.

DEVICES

Cell phones or other electronic devices not approved by the NYS Chairperson will be collected by the contest chair during the competition. Chairpersons will announce their acceptance by listing it on their standard or at the orientation meeting. In case of emergencies advisors should allow the competitors to take their phones to the contest areas.

If the competitor uses their device in a manner which compromises the integrity of the competition, the competitor’s score may be penalized.

SCOPE OF THE COMPETITION

The competition is a two-person team event that tests technical knowledge and production skills, including critical thinking, creative problem solving, teamwork, interpersonal and visual communication, artistic design, and technical programming.

KNOWLEDGE PERFORMANCE

All competitors are required to take the NYS SkillsUSA professional development at orientation.

The competition will include a written exam assessing the team's knowledge of the industry, including its jargon, technologies, and professional methods.

SKILL PERFORMANCE

Teams must produce an original prototype or sample of an interactive application or video game with at least one level and ten (10) minutes of interactive content. It must be created during the school year immediately preceding the competition deadline. The production should include the sample or prototype itself and other submissions described in Section 2 above. Resumes should include the skills gained from their experience developing the competition submission, the time they invested, and the professional and academic relevance to the competitor's career ambitions.

COMPETITION GUIDELINES

1. Competitors will show up at the competition orientation meeting with their full submission of written documents, including a resume for each team member, and their completed DD and digital videos, pre-tested and ready for submission on a USB drive. Late submissions will be docked 10% against all applicable judging criteria, and submissions will not be accepted after the designated competition setup time.
2. At the designated setup time, each team will assemble and test their sample/prototype and workstations.
3. Schedules will be disseminated with the time periods for interviews with the judges.
4. Outside their interview time, someone from the team should be on hand to demonstrate to the public and watch over their equipment.
5. The competition timeframe will depend on the total number of entries in the competition.
6. The technical committee reserves the right to photograph and videotape competition-related activities.
7. The technical committee will be responsible for developing the evaluation tools by which to objectively measure the competing team's performance. Judging criteria will be general in nature and will be done from the completed concept art/storyboard, demonstrated sample or prototype, any written and video submission, resumes, exam scores and interviews with the judges. Specific criteria may be based on the demonstration of competency in the elements of conceptualization, design, artwork, content creation, gameplay, or effective simulation, programming effectiveness, user-interface design, implementation, functionality, and performance on the target platform.
8. The setup, configuration, and teardown of all competitor-provided equipment will be the team's responsibility.

STANDARDS AND COMPETENCIES

The technical committee has identified the following professional competencies addressed in the competition:

VG1.0—Solve problem or create a conceptual design in a visual format

- 1.1. Conceptualization, visual communications for artists and storyboarding techniques.
 - 1.1.1. Solve problems and/or develop stories creatively.
 - 1.1.2. Define how a problem will be solved or how a story will be told.
 - 1.1.3. Describe the concept visually with enough depth to communicate the final output substantially and accurately for team members and interested third parties.

VG 2.0 — Create and manipulate 2D, 3D, and audio computer-generated objects (assets)

- 2.1. Create assets using various technologies.
 - 2.1.1. Create and modify 2D artwork, including textures, sprites, and backgrounds.
 - 2.1.2. Create and modify 3D geometry to produce characters, objects, and environmental elements (models) that possess shape and texture.
 - 2.1.3. Create and modify audio elements.
 - 2.1.4. Optimize all assets for use in real-time, interactive environments.
 - 2.1.5. Use programming to apply physics and other properties to assets for creating complex behaviors and relationships.

VG 3.0 — Develop, optimize and deploy complex interactive multimedia applications

- 3.1. Position assets, lights, and cameras and organize environments into scenes/levels, and output as a functional, interactive multimedia application or video game.
- 3.2. Apply logical properties to lights, cameras, and other assets so they appear and behave properly.
- 3.3. Add sounds, particles, and/or visual effects to enhance the quality of the user experience.
- 3.4. Create a functional user interface.
- 3.5. Test, optimize and deploy as an application or video game.

VG4.0— Demonstrate the ability to work in a team environment

- 4.1. Cooperate with others to achieve the solution to a problem or bring a project from concept through development.
- 4.2. Demonstrate consensus building.
- 4.3. Apply written and visual communication skills to convey ideas between team members and interested third parties. Divide tasks, set goals, and meet deadlines to complete complex projects with multiple contributors.

VG 5.0 — Demonstrate proficiency in technical, small-group communications

- 5.1. Show the judges that your submission evokes the intended response from the audience by using technical presentation skills and other communication techniques.
 - 5.1.1. Demonstrate in a manner appropriate to the audience.
 - 5.1.2. Capture and retain the audience's attention and interest.
 - 5.1.3. Elicit intended aesthetic responses to visual, auditory, and kinesthetic stimuli.
 - 5.1.4. Achieve learning, familiarization, persuasion, or other intended objectives.