



## SkillsUSA Florida Championship 2021

### PREPARING FOR THE CONTEST

#### Introductory Information

*This document serves as a supplement to the official SkillsUSA Technical Standards found online at [absorb.skillsusa.org](http://absorb.skillsusa.org) to be used to prepare for state-level virtual competitions. State-level contests will follow the "Standards and Competencies" outlined in the official SkillsUSA Technical Standards (Virtual). Contestants and instructors should review the contest's Technical Standards as a first step in preparing for a competitive event.*

*Any information contained in this document applies to state-level competitive events only. Download and review the State Virtual General Regulations at [skillsusafl.org/state-conference](http://skillsusafl.org/state-conference) for more information regarding virtual contests. The list of supplies and materials outlined below is subject to change; updates will be posted to our website on the contest updates page.*

*SkillsUSA Professional Members (advisors and teachers) can access the standards through SkillsUSA Absorb ([absorb.skillsusa.org](http://absorb.skillsusa.org)). To join as a Professional Member visit [bit.ly/skillsusa-prof](http://bit.ly/skillsusa-prof).*

#### Clothing Requirements

*Because of the nature of virtual competitions, official SkillsUSA competition clothing is not required, but is encouraged. Students may also compete in trade-appropriate attire if official contest attire is not available. Alternatively, competitors may dress in business attire. See State Virtual General Regulations for more information.*

#### Class E: Contest Specific - Business Casual

- Official SkillsUSA white polo shirt
- 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 closed-toe dress shoes

#### Supplies and Materials

*Contestants will need the following for the contest:*

- 1:1 device for each contestant with camera, microphone and internet connection of at least 2 Mbps up/down
- Filming Device  
*A device to complete a video recording. This may be a laptop, phone or other device with support devices like a tripod, microphone, etc. Preferred file format is MP4.*
- 1-page resume for in PDF format
- Challenge field: 12' x 12' simulated neighborhood
- Field elements: components of a residential area and obstacles to traverse, open, and manipulate in order to locate and dispose of simulated explosive ordinances

- A command center are equipped with a table, two chairs, and a video monitor
- General workspace for team designated as a "pit" area, including one table, two chairs, and access to a 120-volt outlet
- Safety equipment - eye protection is required at all times in the contest area
- Fully assembled, tested, and operational ordinance disposal robot conforming to the guidelines and parts restrictions listed in the challenge packet
- Team number affixed to robot
- Presentation software for oral presentation to judges (optional)
- CAD/CAM software for blueprint design (optional)
- Completed engineering notebook
  - Technical drawing/blueprint of robot drive cassis must be included in notebook
- Pens, pencils and paper
- Tools:
  - Allen wrench set (English)
  - Clamping vise
  - Metal tin snips
  - Power strip
  - Calculator
  - Tape measure
  - Hammer
  - Metal file
  - Flat-head and Phillips-head screwdrivers
  - Wire strippers (one set)
  - Wire cutters/snips (one set)
  - Roll of electrical tape
  - 4" nylon wire ties (25 pack)
  - Multimeter
  - Multinut pliers
  - Metal-cutting hacksaw (manual)
  - Cordless drill with charger
  - Set of standard drill bits
  - Pliers (needlenose or rectangular)
  - Set of box wrenches
- Additional supplies and materials may be required. Contest supply and materials lists will be posted on the Contest Updates page by March 1.

*SkillsUSA Florida will provide the following for the contest:*

- Contest prompt and information
- Contest Prep Box, with materials needed for the contest like stopwatch, measuring tape, and large face digital clock that must be used in pre-recorded videos
- Meeting links and upload information



#### Local Proctor Information

A local contest proctor (non-advisor/program instructor) must be present for the contest. The proctor should review the technical standards, this document and the state contest which will include an integrity statement containing additional information for the proctor.

Once the contest is complete, the contestants, chapter advisor and onsite proctor will sign-off on the integrity statement. Additional contest proctor information can be found on our website.

#### Advisor Information

An advisor or instructor must be present for the duration of the competition to ensure safety and conduct standards are upheld. Advisors will not participate in judging or interfere in the contest, except in the event of safety or conduct violations, or equipment malfunction. Any communication between students and their advisors during the contest will result in disqualification.

### CONTEST INFORMATION

#### Knowledge Performance

This contest includes two multiple choice knowledge assessments. Instructions and credentials to complete these assessments will be provided when the contest window opens. These assessments should be completed under the supervision of the contest proctor.

- **Robotics: Urban Search and Rescue Assessment** – Based on the standards and competencies as outlined in the Technical Standards.
- **Professional Development Career Readiness Assessment** – Assesses preparedness to enter the workforce as defined by the SkillsUSA Framework which identifies skills that are essential for success in the workplace and life.

#### Skill Performance

A two-member team builds its robot and arm mechanism prior to the competition and then, during the competition, remotely operates the robot, which should be capable of locating, grabbing and moving simulated ordnances on the challenge course.

#### Contest Guidelines

You will need to set up a course for the robot to travel through within a 12-foot by 12-foot area. The course does not have to look

identical to the past years course. Points will be scored for difficulty of the course path (getting into boxes, climbing ramps, traveling on rough terrain.) There will be a scoring rubric provided soon for the challenge field.

Below is the list of materials that need to be submitted for judging the team's work.

- Picture showing robot fits within an 18"x18"x18" cube
- Tape measure or similar device is fine.
- Video of ordnance retrieval completion.
- Video of arm functioning.
- Engineering notebook in PDF
- Presentation covering design process.

Students will also make a presentation, either live or recorded, to judges using the engineering notebook as a guide. Presentation can be in Video or Power Point file. Presentation must be under 12 minutes in length.

A contest proctor will be required for each recording and live session. Recordings must be setup, started, monitored and stopped by the contest proctor. The camera must be setup in such a way as to show all materials and a clear workspace. The contestant and large face digital clock should be always visible in the recording. The recording must be unedited (continuous) to ensure no outside help was provided.

Additional files may be required to be submitted. These requirements will be outlined in the state contest prompt.

The contestant will not mention their name, school, city or state. Basic safety practices related to the skill performed must be followed.

At the completion of the event, the team, chapter advisor and proctor will sign-off on the integrity statement. This integrity statement will need to be submitted with the entry.

### SUBMISSION REQUIREMENTS

The following needs to be uploaded by the deadline. No late submissions will be accepted.

- Statement of Assurances: PDF file (\*Upload by April 1)
- Resume: PDF file (\*Upload by April 1)
- Engineering Notebook: PDF file
- Video recording: MP4 file
- Project files: various
- Integrity Statement: PDF file