**Sklills USA DRONE PILOT COMPETITION**

## PURPOSE

To evaluate each contestant's ability to meet professional Drone Pilot requirements needed to successfully test, communicate, and present as a Drone FAA Certified Pilot.

## ELIGIBILITY

Open to active SkillsUSA members who either currently or have been enrolled in an approved High School Drone curriculum program. *Note: If any student or teacher is a certified FAA Part 107 pilot, they should possess their FAA and NCDOT credentials to fly.*

## CLOTHING REQUIREMENTS

* Any official SkillsUSA dress is acceptable for this contest, seeing it crosses over into so many other areas. No school mascots or names shall be worn on the students clothing.
* For outside flying, it is recommended that students use outdoor shoes. These shoes must be closed-toe for safety purposes.
* Additionally, hardhats, safety glasses, and High-viz vest will be required for outside flying.

# Indoor Skills Contest Guidelines

1. **Presentation**
	* Students will be provided a scenario on a mission prior to the contest date.
	* On the contest day, student will provide a written Mission Report to the Proctor upon his or her arrival in the testing room and a debriefing of the mission including a hardcopy of presentation.
	* A Scoring rubric will be used.

## EQUIPMENT AND MATERIALS

1. **Supplied by judges:**
2. 30 question FAA 14 CFR Part 107 written test and answer sheets (or online)
3. Search and Rescue Mission Scenario for use in developing the presentation.
4. Scoring sheets
5. **Supplied by the contestant:**
	1. Hardhats
	2. High-Res Safety Vest
	3. The sUAS for competition, including all batteries and controllers as required. Any sUAS is acceptable that includes a minimum 32GB SD card.
	4. A device that can access the internet such as a laptop or Chromebook with wireless access.
	5. Airman Knowledge Testing Supplement (No markings in book).
	6. The 5-minute max PowerPoint presentation of the mission plan on a USB drive for use during the oral presentation portion of the contest (to be completed prior to day of the contest). A hardcopy is also required.
	7. All competitors must create a one-page resume and submit a hard copy to the technical committee chair at orientation. Failure to do so will result in a 10-point penalty.

## ARRANGEMENT OF ROOMS

Oral presentation room: A room will be furnished with two tables, each with chairs for judges and a timekeeper/room monitor. Additionally a holding area will be required for contestants awaiting judging for the presentation.

## OBSERVER RULE

Observers will be allowed to see the hands-on competition outside the competition area, and also be allowed to see the presentation part of the contest **in** the presentation room provided space is available. No talking or gesturing will be permitted. No observers will be allowed **in** the assembly area. No member of the audience will be permitted to enter or leave the demonstration room while a contestant is speaking. No cameras, video recorders or audio recorders will be allowed by members of the audience during the presentation portion of the contest.

**Skill Performance**

This contest assesses both Practical Skills required to fly a sUAS and the ability to determine the needs required to complete a job request from a customer.

1. **Outdoor Skills Contest Guidelines Flight Performance**
	* The student will bring the sUAS to the NIST test location and demonstrate a preflight, simulated flight, post flight inspection. The student will demonstrate putting the sUAS back in service for transport and storage.
	* The student will conduct maneuvers using their sUAS (provided by the school) to complete NIST evaluation components that include the use of videoing of the letters/numbers located in buckets.
	* Judges will act as as Visual Observer (VO).
	* Flights will be flown by the student pilot communicating with the VO (see skills-sheet).
	* The judge will evaluate the preflight, in-flight, and post-flight operations and use the video to judge NIST component of the contest.
	* NIST Standards for NFPA 2400 will be used for the flight portion of this contest. Information can be found at this link,
		+ <https://bit.ly/3cdvmx8>





1. **Contest Rules**
* sUAS, SD card with a camera provided by the high school.
* Flights will be flown by the student pilot with communications from a VO. The judge will act as the VO and participate in the verbal commands as needed for In-Flight communication requirements along with completing a judges skills sheet. Successful recording of steps and accurate capture of video images will determine points earned during the competition.
* In case of a tie, the flight time will be the deciding factor. Time starts when the sUAS lifts off and returns touching the launching pad.
* In the case of a second tie, the number of correct points scored on the written test will be added to the skills test score (note: this is double counting of test scores).