



2020 State Contest

Graphic Imaging Sublimation

Description:

To evaluate each contestant's preparation for employment and recognize outstanding students for excellence and professionalism in the field of the printing industry.

Note: Please check the provided links for updated contest information and the SkillsUSA National Technical Standards

- [SkillsUSA Championships Technical Standards](#)
- [Contest Updates](#)

Eligibility

Open to active SkillsUSA students enrolled in a career and technical education program with Graphic Imaging Sublimation as the occupational objective or another related course objective.

Clothing Requirements

Class E - Casual Attire

Official Attire for Men:

- Official SkillsUSA white polo shirt
- Black dress slacks (accompanied by black dress socks)
- Black dress shoes

Official Attire for Women:

- Official SkillsUSA white polo shirt
- Black dress skirt (knee-length) or black dress slacks
- Black or skin-tone seamless hose
- Black shoes

[Clothing Classifications](#)

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2020 State Contest

Note: Contestants must wear their official contest clothing to the contest orientation meeting. Contestant's Resumes (3) will be submitted on the day of orientation or before the contest begins if requested by judges.

Knowledge Performance

Answer a minimum of 25 multiple-choice graphics imaging sublimation questions. Complete the test in the allotted twenty-five (25) minutes.

Participate in an oral professional assessment.

Communicate in a job interview setting, which requires technical knowledge, career objective, professional judgment, professional attire, and courtesy.

Skill Performance

The skill performance portion of the contest will include dress appropriately and participate in a mock job interview. Contestants should be prepared to print a graphic on the mug using a wrap and a convection oven, print on the mug using a mug press, print on a t-shirt, print on a cutting board, and print on a mouse pad and/or license plate. (some combination of the listed items, up to 4 items).

Contest Limit

To complete a given amount of Graphic Imaging Sublimation tasks in a given amount of time, in addition to completing a written exam. Timed elements are Written Exam, 25 minutes. Skills Performance, 20 minutes.

Equipment and Materials

Supplied by the technical committee

Needed tools will be provided at each competency testing station.

Contestants may use rulers, rags, optical devices, markers, and other items that they feel will enhance their performance, so long as they are not prohibited by other law or regulation and do not pose a safety hazard.

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2020 State Contest

Supplied by contestant

1. Gloves
2. Other hand tools as desired, subject to the approval of the technical committee
3. Measuring Tape or rulers
4. All competitors must create a one-page résumé and submit a hard copy to the Technical committee chair at orientation. Failure to do so will result in a 10-point penalty.
5. Writing utensils, notepads, are the responsibility of the contestant
6. Toolboxes to be inspected on Judge's discretion.
7. Submit a résumé to an interviewer.

Contest Guidelines

1. Contestants will be provided with the characteristics, parameters, and information to accomplish the assigned tasks.
2. **Time limit:** Timed elements are: Written Exam, 25 minutes. Skills Performance, 20 minutes.
 - a. Contestants will begin upon a signal from the timekeeper.
 - b. As soon as contestants have completed the assignment and are fully satisfied with the operation and quality of their work, they will signal the judge and stop their work. This signal will determine the elapsed time and speed.
3. The completed projects will be tested/checked by the judges for the quality of work and operating specifications.

Performance testing station checklists may generate points in more than one of the nine evaluation areas. (Example: Printing on mugs or ceramic tiles will test some identical graphics imaging sublimation printing skills. Testing of identical skills will contribute points to a composite score on the Graphic Imaging - Sublimation Scorecard.)

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2020 State Contest

When a contestant has completed an assigned job the contestant is to be seated in a chair placed at that testing station to stop performance timing. After the judge and timekeeper complete rating each contestant's performance and procedure, the contestant will be notified. The judge will gather the completed project and rating form and submit it to a scorekeeper for tabulation.

Each contestant will work independently without assistance from judges, instructors, fellow contestants, or observers. Such assistance may result in the contestant being disqualified. Contestants should perform minor testing station maintenance: such as cleanup, tool, and materials placement. Testing station maintenance is an item that will be evaluated by testing station judges.

Print a graphic on the mug using a mug press.

1. Measure and cut the image transfer to fit the mug.
2. Position image transfer on the mug.
3. Tape the transfer to the mug with heat resistant tape.
4. Place the mug in the press with the handle facing out.
5. Close the press (the handle will lock into place when closed) to start the timer.
6. Open press when the timer sounds (4 minutes) and remove the mug.
7. Remove heat tape from transfer and peel the paper from the mug.

Print a graphic on the mug using a wrap and a convection oven.

1. Measure and cut the image transfer to fit the mug.
2. Position image transfer on the mug.
3. Tape the transfer to the mug with heat resistant tape.
4. Install mug wrap to firmly press image transfer to the mug surface.
5. Place the mug and image transfer in the convection oven.
6. Heat the mug and transfer to 400 degrees for 12 to 14 minutes.
7. Put on the oven glove before removing the hot mug from the convection oven.
8. Remove the transfer from the mug before in sticks.
9. Stop the dye sublimation by dipping the mug in room temperature water.

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2020 State Contest

10. Place the printed mug on a cooling table to dry.
11. Inspect the mug Transfer material that did not peel off.

Print on a mouse pad.

1. Position image transfer on the mouse pad.
2. Secure with heat transfer tape if necessary.
3. Place the first Teflon sheet on the heated transfer press.
4. Place image transfer and mouse pad on the Teflon sheet.
5. Place the second Teflon sheet on top of the image transfer.
6. Close heat transfer press.
7. Heat the image transfer and mouse pad to 400 degrees for 40 seconds.
8. Open heat transfer press and safely remove hot Teflon sheets and mouse pad.
9. Place a mouse pad on a cool surface to stop dye sublimation.
10. Remove heat transfer tape and image transfer from the mouse pad before it sticks.
11. Inspect the mouse pad transfer material for peeling.
12. Inspect the mouse pad for image transfer material that did not peel off.

Print on a metal surface (license plate)

1. Remove the protective film from the license plate.
2. With the license plate face up on a table, the position transfer face down on the license plate.
3. Tape transfer and license plate together.
4. Place Teflon sheet on heat press lower platen.
5. Place another Teflon sheet atop the license plate and transfer.
6. Place license plate and Teflon sheet into a heat press.
7. Check the heat press timer for 1 minute 45 seconds dwell.
8. Check heat press temperature for 400 degrees and close the heat press.
9. Press license plate and transfer until the timer alarm sounds.
10. Remove tape and peel transfer from the license plate.

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2020 State Contest

Print on polyester knit (t-shirt)

1. Place Teflon sheet on heat press lower platen.
2. Place a shirt on the heat press.
3. Position transfer face-down on shirt within vertical tolerance below the shirt collar.
4. Use heat transfer tape to attach the transfer to the shirt.
5. Place the Teflon sheet on top of the transfer and shirt (below upper platen).
6. Close the heat press.
7. Press shirt and transfer until the timer alarm sounds.
8. Open heat-press, remove upper Teflon sheet, remove the tape and peel transfer paper from shirt promptly.

Quality Control Problem

1. Study image technical specifications.
2. Study the quality assurance worksheet scenario and inspection steps.
3. Inspect a quality assurance sample of five printed images.