



Electronics Technology Contest Information

(Tentative- Information is subject to change check back often)

By Mitchell Thomas — Last modified February 14, 2023

Written testing for most contests will be held ON-LINE through your schools' Testing Liaison. Testing will be open beginning Monday, March 15th.

Students will receive an email from National Skills USA for testing.

The deadline for taking the on-line tests is Friday, April 7th.

No provisions are being made for make-up testing on-site.

NO Substitutions will be allowed this year after April 7th

See the State SkillsUSA Director's Memo for the policy on substitutions and late registrations.

Each contestant will be required to bring his or her printed resume. It will be presented to the judges upon entry to the contest area. A deduction will be applied to your overall score if you do not have a resume

Contestant fees for soldering kit and breadboarding parts are included in conference registration.

Each contestant will be required to bring his or her printed resume. It will be presented to the judges upon entry to the contest area. A deduction will be applied to your overall score if you do not have a resume.

Contest location is in the Conference Hall Area.

TOOLS and SUPPLIES

Construction materials will be provided at the contest site. New components for breadboarding will be provided, which contestants will keep at the conclusion of the contest. Contestants will again be constructing a kit which they may keep after the contest is over. Contestants will need to bring the following:

- **SUPPLIED BY THE TECHNICAL COMMITTEE:**
 - Soldering kit (less solder)
 - Breadboarding components
 - Breadboard
 - Alcohol (bulk, contestants will need own dispensers)
- **SUPPLIED BY INSTRUCTOR FOR EACH CONTESTANT (NO SHARING):**
 - Pre-stripped breadboard connecting wires, various lengths

- At least 2-NEW, FRESH 9 Volt transistor batteries
- Volt-Ohm-Milliammeter (VOM or DMM)
- 50 MHz Dual Trace, Dual Time-Base Oscilloscope and Probes (TWO each X1 and X10 or TWO switchable probes)
- Multi-outlet strip (power bar) with 6 ft. cord
- **NON-PROGRAMMABLE** Scientific calculator (exp. notation, sqr, sqr. root, log, etc.)
- Standard tool list for Electronics (as listed in SkillsUSA Championships Technical Standards)
- Anti-static wrist strap and work mat
- Soldering iron and supplies (solder, acid brushes, wick, solder-extractor, and/or desoldering station)
- Soldering ventilation station (Tenma 72-5030 or equiv.)
- Flux or flux pens
- Dispenser for alcohol (pump up bottle and acid brushes preferred), and KimWipes, if desired
- Eye Protection (ANSI approved goggles or safety glasses with side shields or prescription glasses with side shields)
- 2 - #2 Lead Pencils
- **OPTIONAL ITEMS, HIGHLY RECOMMENDED, WILL NOT BE PROVIDED:**
- Third hand, small bench vise, or PC board vise to hold board while soldering

INDUSTRY AWARDS

As agreed at August Conference each instructor is requested to secure a minimum of \$50.00 in prizes for each student that you bring to the State SkillsUSA Championships. Please contact Mitchell Thomas for details and to let him/her know of industry awards you have secured. I know many of you have already been hard at work securing the awards. These awards should be labeled with the name, address, and contact person for the donating industry so that the contestant they are awarded to can send an appropriate expression of his or her appreciation.

CONTEST DESCRIPTION AND SCORING

The contest will consist of an online written test covering knowledge of electronics, online SkillsUSA knowledge test, a kit construction component, a breadboarding component and an oscilloscope use component. The written test will contribute 10% to the total score, the kit construction (soldering) 26%, the breadboarding 26%, and the oscilloscope use 25.5%. The SkillsUSA (PDP) knowledge test 2.5% to the total score only, which is consistent with National SkillsUSA competition. Other tie breakers will be (in order): written technical test score, breadboarding, kit building and oscilloscope.

Breadboarding standards and ANSI/J-STD-001, the **Joint Industry Standard for Electrical and Electronic Assemblies**, both included in the [General Instructions](#), will be used to judge breadboard construction and soldering skills.