



Electronics Technology

Career Competition

Career Cluster: Manufacturing/STEM

State Qualifying Event: Yes

National Contest: Yes

Participation: Individuals

Competition Description

The Electronics Technology contest is divided into five sections: job skills/interview, written exam, breadboarding, soldering, and troubleshooting. Competitors demonstrate their knowledge of analog and digital circuits, their ability to construct and test experimental circuits, and their ability to troubleshoot electronic circuits.

Tasks To Be Evaluated

Job skills/interview: participate in mock interview.

Written exam: safety, electrostatics, direct current, alternating current, semiconductors, and digital electronics.

Breadboarding: reading a schematic diagram, breadboarding technique, choosing proper components, circuit functionality.

Soldering: safety, technique, circuit functionality.

Troubleshooting: troubleshooting a pre-fabricated, non-functional, analog circuit on a breadboard.

Clothing Requirement

National Requirement:

Class E: Competition Specific: Business Casual Attire

- Official SkillsUSA white polo shirt
- Black dress slacks or black dress skirt (knee-length minimum)
- Black, closed-toe dress shoes.

State Requirement:

National Requirement OR

- White polo shirt or button-down dress shirt (other colored polo/dress shirt will be subject to deductions)
- Black dress slacks or black dress skirt (knee-length minimum)
- Black, closed-toe dress shoes.
- Any embroidered names or school patches must be covered, if applicable.

Provided by Competitor

- hand tools necessary to build a breadboarded circuit and a soldered circuit.
- 25-watt (minimum) soldering iron, and associated supplies (iron holder, tip cleaner, etc). No soldering guns will be allowed.
- DMM capable of measuring voltage, current, resistance, and continuity.
- Writing utensil.
- Safety glasses.
- Scientific calculator.
- Resume.

Provided by Technical Committee

- All materials, supplies and circuit information needed to construct and troubleshoot a breadboarded circuit and a soldered circuit.