

**2023 SkillsUSA Tennessee State Leadership and Skills Conference**  
**Internet of Things-Smart Home**  
**Contest Update**

**Equipment and Materials**

Supplied by the Committee:

- Ethernet Cable CAT 6
- RJ45 Connections
- RJ45 Crimpers
- Wire Cutters
- Chromebook with access to Google Play store
- Google Nest Home
- Google Nest Mini
- SMART Plug
- Lamp
- Power strip
- Wireless router

**Personal Devices**

Cell phones and laptops may be used during the competition.

\* Note: for the SkillsUSA national competition, contestants will need to provide all tools listed in the technical standards and personal devices will not be allowed.



# INTERNET OF THINGS AND SMART HOME

## 2023 State Contest

### Secondary

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#### **Description**

The purpose of the contest is to evaluate personal, workplace and technical skills for employment as an Internet of Things (IoT) specialist in the context of a SMART home. The contest examines these five competencies: (1) a test of knowledge, (2) a performance-based demonstration, (3) a professional resume, (4) a project assessing written communication, and (5) a job interview.

March 20-31, 2023

#### **1. Knowledge Test**

The test is online during the testing window. It examines your knowledge of concepts, standards, and best practices as they apply to the IoT in a SMART home.

Monday, April 17, 2023

#### **2. Performance Demonstration**

Demonstrate a firm understanding of these fundamental IoT concepts within a residential setting:

- Make a Ethernet cable CAT6
- Installation of Google Nest Home and Nest Mini
- Install SMART Plug and lamp
- Create a routine to turn on the lamp

Physically setup a SMART home with IoT. Use a wireless router, an Ethernet cable, a SMART Phone, the Google Nest Hub, Google Nest Mini, a SMART Plug, and a lamp. Upon completion, verbally describe to the judges how, why, and what you did to accomplish this task. The presentation must be delivered clearly and concisely within five to seven minutes.

Tuesday, April 18, 2023

#### **3. Professional Resume**

Submit your resume based on the SkillsUSA rubric to the judges at orientation.

#### **4. Writing Assessment**

Alice has recently bought several smart home devices for her house, including a SMART thermostat, a SMART refrigerator, a SMART lock and a SMART security camera. She wants to enjoy the convenience and comfort of controlling her appliances remotely and saving energy. However, she is also concerned about the potential IoT security issues that might compromise her privacy and safety. She has heard that hackers can exploit vulnerabilities in IoT devices to access personal data, spy on users, manipulate settings or even cause physical damage. She wants to know how to protect her solution from these threats.

Write a 300 word essay that explains how Alice can secure her smart home devices using IoT best practices.

#### **5. Job Interview**

The judges will interview each contestant to evaluate their employability skills.



# INTERNET OF THINGS AND SMART HOME

## 2023 State Contest

### Post-Secondary

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#### **Description**

The purpose of the contest is to evaluate personal, workplace and technical skills for employment as an Internet of Things (IoT) specialist in the context of a SMART home. The contest examines these five competencies: (1) a test of knowledge, (2) a professional resume, (3) a project assessing written communication, (4) a job interview, and (5) a performance-based demonstration.

March 20-31, 2023

#### **1. Knowledge Test**

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Monday, April 17, 2023

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Tuesday, April 18, 2023

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