



## 2025 INDIANA SkillsUSA CHAMPIONSHIPS TASK AND MATERIALS LIST

SKILL OR LEADERSHIP AREA: **Mechatronics**

### CONTEST LOCATION:

Area 31 Career Center  
1200 N Girls School Rd Door #17 (North side of Ben Davis HS)  
Indianapolis, IN 46214

**DATE: April 12, 2025**

**TIME:** 6:00 am- concession opens  
6:30 am- arrive at West Pavilion  
6:45 am- load bus  
7:00 am- bus leaves  
7:30 am- arrive at Area 31  
8:00 am- contest will begin

### PURPOSE

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of Mechatronics

### CLOTHING REQUIREMENTS:

*NO SCHOOL LOGO OR SCHOOL AFFILIATION ANYWHERE ON CLOTHING or IT MUST BE COVERED COMPLETELY*

- Official SkillsUSA khaki work shirt and khaki pants is not required but if you have it please wear it or:
- Work shirt or conference t-shirt tucked in
- Work pants or jeans (no holes), belt no sagging pants
- black, brown or tan leather work shoes
- Safety glasses with side shields or goggles. (Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.)
- JEWELRY: No dangling jewelry. Rings to be removed or taped over. HAIR: Long hair to be tied tightly to scalp.
- Personal protective equipment during the performance of the competition.

**Protective equipment includes approved safety glasses.**

### **\*AWARDS CEREMONY DRESS CODE\***

*A Dress Code will be enforced during the Awards Ceremony. To accept an award "on-stage", the student must wear the "Official SkillsUSA Uniform", State T-Shirt or the competition attire. **NO SHORTS OR HATS!!!***

### MATERIALS

SUPPLIED BY STUDENT:

**\*\* 1 PAGE RESUME, FRONT ONLY, THAT MUST BE TURNED IN AT THE BEGINNING OF THE CONTEST. THERE IS A 10 PT DEDUCTION IF NOT TURNED IN ON TIME. NO SLEEVE PROTECTOR OR FOLDER.**

Each contestant is required to bring the following equipment, tools and material to the competition. The care, use and transportation of the tools and equipment to and from the

contest is the responsibility of the contestant. All tools must meet proper OSHA safety standards. **Each contestant must have tools, sharing of tools is not permissible.**

Required equipment and materials:

- \* One (1) PLC assembly. The PLC assembly must meet the following requirements:
  - 1). Power supply: The PLC must be capable of operating at 24VDC, or 120VAC - rated for 5 Amps. All 120VAC units must be wired ahead of time to an in-line ground-fault interrupter device and standard (NEMA 5-15P) 120VAC line cord. All 120VAC wiring must meet PLC manufacturer's requirements and follow standard industry practice. Judges reserve the right to disallow the use of any competitor supplied equipment that presents a safety hazard. No line cords or 120VAC wiring devices will be supplied at the competition.
  - 2). PLC shall have a minimum of 16 digital inputs and 16 digital outputs.
  - 3). Inputs shall be 24VDC Sinking (inputs shall be activated by application of a +24VDC signal to the input terminal).
  - 4). Outputs shall be 24VDC Sourcing (outputs shall supply a +24VDC signal to the load when activated). All loads will be returned to ground. Output capacity shall be no less than 0.5A, each.
  - 5). A laptop or other device dedicated to programming the PLC. It shall be used for no other purpose during the competition.
- \* Basic hand tools: Pliers, needle nose pliers, wire cutters, wire strippers, hex keys, screwdrivers, nut drivers (metric and imperial for all tools)  
A cordless drill/ driver may be included. (optional)
- \* Digital multimeter
- \* One 6' multiple-outlet surge protector

#### NOTE:

The above list is a minimum. Competitors may bring other hand tools, but no materials or power tools (except the battery drill) are allowed.

The contestant must wear appropriate SKILLSUSA clothing or appropriate attire and personal protective equipment during the performance of the competition.  
**Protective equipment is approved safety glasses.**

Each contestant is required to bring at least (2) sharpened pencils for the written portion of the competition. Calculators will be provided

NO CELLPHONES OR ELECTRONIC DEVICES ALLOWED IN CONTEST AREA,  
INCLUDING APPLE WATCHES OR SIMILAR ITEMS.

**\*\*\* The contestant will not be permitted to compete in the wiring competition if they do not have the required safety gear, which is safety glasses.**

**NO ADVISORS ARE ALLOWED IN THE CONTEST AREA AT ANY TIME!**