

## **Residential Wiring**

Contestants may be required to complete a written test. A hands-on installation and wiring exercise will be required. Working from drawings and specifications sheets, contestants are required to install residential wiring and electrical devices. Judging is on the basis of general workmanship, accuracy of layout and installation, and adherence to the current National Electrical Code and standard industry safe practices.

### **Tips:**

- Check the Skills USA contest tool list for requirements. Make sure to bring only the tools listed. Tools not listed that you bring may require point deductions. Cordless drills/screw-guns are permitted
- Come prepared to incorporate various residential wiring skills, such as 3-way and 4-way switching, split-wired receptacles, GFCI duplex receptacles and doorbell operation.
- Know how to read blueprints and cable layout diagrams, and know how to interpret installation specifications.

**Test:** Contestants will install a GFCI receptacle and a three-way / four-way switch circuit controlling a light fixture. Wiring methods will include NM and MC cable. Students will be asked to complete a schematic diagram of their project.

**Tools:** Standard electrician tools as per Skills USA list with hacksaw or roto-strip tool (for MC)

## **Industrial Motor Control Wiring**

Contestants may be required to complete a written test. Working from drawings and specifications sheets, contestants will be required to install Motor Control wiring. EMT bending may be included. Judging is on the basis of general workmanship, accuracy of layout and installation, and adherence to the current National Electrical Code and standard industry safe practices.

### **Tips:**

- Check the Skills USA Industrial Motor Control contest tool list for requirements. Make sure to bring only the tools listed. Tools not listed that you bring may require point deductions.
- Come prepared to incorporate various motor control wiring skills, stop-start and forward-reverse push button stations.
- Know how to read blueprints and ladder diagrams, and know how to interpret installation specifications.

## **Industrial Motor Control Wiring**

**Test:** Contestants will install wiring for Start-Stop push button station, controlling a three phase motor starter and three phase motor.

**Tools:** Standard electrician tools as per Skills USA list.