

<b>DATE</b> Wednesday, April 14, 2021	<b>LOCATION</b> Memorial High School <b>CLOSED EVENT</b>
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## 1. Schedule

Time	Task
8:30 am – 9:00 am	Orientation
9:00 am – 12:00 pm	Project
12:00 pm – 1:00 pm	Lunch (provided)
1:00 pm – 3:00 pm	Project continues
3:00 pm – 4:00 pm	Judging

## 2. Purpose of the Contest

Assess the contestant's skills and abilities performing various installation tasks in the field of residential and commercial electrical wiring.

## 3. Criteria

## 4. Number of Stations / Allocations

There is a maximum of four (4) spaces available to Memorial High School student only.

## 5. Skills & Knowledge to be Tested

Throughout the final contest, contestants can expect to be evaluated in one, two, three or all of the following areas:

- Installing residential, commercial wiring and control systems;
- Installing branch circuit components;
- Installing heating equipment and components;
- Installing warning devices and various types of detectors.

## 6. Prerequisites

### *Contest-Specific Prerequisites*

Contestants must provide a document proving:

- Completion of provincially recognized Safety Orientation and WHMIS courses;
- Journey person or instructor consent for use of power and hand-tools.

Contestants **must demonstrate mastery of the following technical skills:**

- Measuring and marking dimensions on a work surface using scale plans and drawings based on both metric and imperial measuring systems;
- Measuring and accurately taping holes in control panels;
- Installing electrical equipment, cables, conduit, tubing and raceways;
- Measuring, sawing, drilling and deburring metals and plastics;
- Assembling components using screws, staples and bolts;
- Linking lines and equipment to control panels and their components;
- Wiring and connecting electrical components;
- Identifying and marking conductors according to plans and drawings.

Contestants **must demonstrate mastery of the following theoretical skills:**

- Reading, interpreting and executing plans, drawings, diagrams and schematics in compliance with standards;
- Knowledge of electrical materials and construction work methods;
- Knowledge of basic electrical circuits along with devices and equipment;
- Knowledge of OH&S standards and regulations;
- Knowledge and application of electrical code requirements in Canada and installation to comply with CEC 2018 edition.

### ***SCNS Prerequisites***

- Attend a public or private secondary institute;
- Be between 13 and 21 years of age on January 1 of the year of the Competition;
- Have been earning junior or senior high school credits any time during the current academic year (September to June);
- Be registered as a competitor with Skills Canada – Nova Scotia;
- Possess a Canadian citizenship or landed immigrant status and be a resident of Nova Scotia. Competitors are responsible for verifying this information if requested;
- Have completed and submitted a signed release form by a parent or guardian, if under the age of 19.

## **7. Equipment & Clothing**

### **a) What Will Be Supplied**

- A ladder;
- ½" EMT Bender;
- All power tools (cordless drill)

### b) What Competitors Must Supply

- CSA-approved safety gear (hard-hat, boots, goggles and gloves);
- Supplies for writing and drawing, i.e. pencil, eraser;
- Metric / Imperial measuring tape;
- Set of screwdrivers (Robertson, Flat and Phillips);
- Pliers (Linesman, Needle nose and Side cutting);
- Tri-Square;
- Electrician's knife;
- Wire Strippers;
- Torpedo Level;
- Multi-purpose pliers (Channel-Locks);
- Hammer;
- Adjustable wrench (Crescent);
- Set of Hex wrenches;
- Wood Bits (1/2 - 5/8 - 3/4);
- Fish Tape;
- Metal Unibit;
- Manual Hole Punches (1/2 - 3/4 - 1");
- Tapping Screwdriver (6/32 - 8/32 - 10/32 - 10/24 - 1/4 X 20);
- Metal Hand Saw (Hack-Saw);
- Set of Metal Drill Bits;
- Canadian Electrical Code Book (2018 Edition);
- Safety Equipment.

**PLEASE NOTE:** Safety equipment must be worn at all times on the competition site while complying with occupational health and safety regulations. Rings, chains, metal watches etc. will not be permitted while the competition is in progress. Contestants clothing must be neat and clean in appearance (torn, lose or ripped clothing will not be permitted).

### 8. Evaluation & Judging Criteria

Item	Point Value
Operation	35
Equipment / Component Installation	10
Use of Supplies	5
Measurement	10
Cable Installation	10

Conduit Installation	10
Connection of Conductors	10
OH&S Compliance	10
<b>TOTAL</b>	<b>100</b>

### 9. Additional Information

Tie-break procedures:

- a) Project time completion;
- b) Operation score;
- c) OH&S Compliance

### 10. PTC Contact Information

<b>Name</b>	<b>Employer</b>	<b>Email</b>
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