

DATE	LOCATION
April 3rd and April 4th, 2025	NSCC Ivany Campus

1. Schedule

**Please note: this is a two-day competition, taking place on April 3 – 4 2025

Time	Task
8:00 am	Competition starts
12:00 pm	Lunch (provided)
4:00 pm	Competition ends

2. Purpose of the Contest:

By a team of two participants, open to electro-mechanical, electrical, electronics and mechanical engineering technologies sectors. By means of a practical exercise, measure certain skills that every technician must acquire in the field of industrial control and automation.

3. Criteria:

The competition is based on tasks performed on Festo's MPS stations, with the same tasks given to each team.

4. Number of Stations / Allocations:

There will be six (6) spaces available for teams.

5. Skills & Knowledge to be Tested:

- Interpreting and using electronic and pneumatic schematics, and mechanical drawings;
- Construction of mechanical devices and assemblies including pneumatic and electrically driven mechanisms;
- Installation and wiring of electronic and electrical sensors, assemblies and cabling;

- Rendering operational and modifying sequential mechanisms that have a programmable logic controller;
- Commissioning electrical, pneumatic and mechanical systems;
- Troubleshooting;
- Executing tasks correctly and as fast as possible.

6. Prerequisites:

Contest-Specific Prerequisites

- Understanding of electronic and pneumatic diagrams, circuits and components;
- PLC programming knowledge, including editing software and PC to PLC communications;
- Troubleshooting techniques;
- Electrical wiring skills and use of hand tools for mechanical assembly
- Developing and using Sequential Function Charts or other PLC programming protocols;

SCNS Prerequisites

- Be enrolled in a community college, university, private school OR be a registered apprentice with the Department of Labour and Advanced Education (Apprenticeship Agency);
- Be registered as a competitor with Skills Canada – Nova Scotia;
- The competitor cannot be a certified journey-person;
- Possess Canadian citizenship or Permanent Resident (Landed Immigrant) status and be a resident of Nova Scotia; or be a registered International Student. Competitors are responsible for verifying this information if requested;
- Have been earning post-secondary credits in a sector relevant to the one in which they wish to compete (i.e. to compete in carpentry, the student would be earning credits in any construction-related trade) at any time during the academic school year (September to June);
- All competitors must be able to show either current apprenticeship status and/or proof of enrollment in a post-secondary institution upon request of the Provincial Technical Committee (PTC) or Skills Canada – Nova Scotia.
- Have completed and submitted a signed release form

7. Equipment & Clothing

What Will Be Supplied

- Workstations from Festo;
- Pneumatic Tubing and Cutters;
- Wires;
- Tie wraps.

What Competitors Must Supply

- Multimeter (V.O.M.);
- Various screwdrivers;
- Set of ALLEN metric keys;
- Set of open metric keys;
- Metric or adjustable wrenches;
- Wire strippers, wire cutters and pliers;
- PLC board and programming tools*

*PLC board must be pre-wired with two (2) Syslink cables and 24 VDC power supply.

8. Evaluation & Judging Criteria:

- Assembling;
- Programming;
- Hardware and Software Modification;
- Troubleshooting.

9. PTC Contact Information

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