

DATE
Thursday, April 4 and
Friday, April 5, 2024

LOCATION
NSCC Ivany Campus

Schedule

**Please note: this is a two-day competition, taking place on April 4 – 5 2024

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

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.

Criteria

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

Number of Stations / Allocations

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

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;



Contest Description Mechatronics Post-Secondary

- Troubleshooting;
- Executing tasks correctly and as fast as possible.

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
- **NEW 2024:** Eligible post-secondary competitors will have the opportunity to join Team Nova Scotia and compete in a maximum of three Skills Canada National Competitions in a single contest area. After reaching this maximum, individuals are no longer eligible to compete at the provincial level in that contest area.

Equipment & Clothing

What Will Be Supplied

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



Contest Description Mechatronics Post-Secondary

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.

Evaluation & Judging Criteria

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

PTC Contact Information

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