

# Jasraj Jassar

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## EDUCATION

### Southern Alberta Institute of Technology (SAIT)

Dec. 2022–May 2024  
Calgary, Canada

#### Mechanical Engineering Technology - Automation Diploma

- Robots and Robotics (EMSI-320): Gained hands-on experience programming and operating industrial robots like ABB and FANUC robotic arms
- Electro-Mechanical Systems (MECH-205): Learned how to design and integrate electronic, pneumatic, and hydraulic circuits to build automated systems.
- Advanced Programmable Logic Controllers (EMSI-360): Learned to program Allen Bradley PLCs in Studio5000 using Ladder Logic, Structured Text, and Sequential Function Charts, and gained experience creating HMIs in FactoryTalk View.
- Modern Automation Integration (EMSI-300): Learned how to connect modern automation technologies to improve workflows and make equipment run smoothly.

## EXPERIENCE

### Robotics Technologist

Jul. 2025–Aug. 2025  
Calgary, Canada

#### Promise Robotics

- \* Contributed to the design, development, maintenance, and evaluation of robotic manufacturing systems
- \* Developed, tested, and optimized control algorithms, path planning algorithms, and other software components
- \* Identified and resolved technical issues during development, testing, and maintenance phases

### Robot Programmer

May 2024–Jul. 2025  
Airdrie, Alberta

#### TransCanada Turbines

- \* Programmed and optimized Fanuc robots for aerospace engineering applications, specializing in thermal spray, shot peening, and waterjet stripping processes to enhance production efficiency and precision.
- \* Collaborated with operators to integrate advanced automation technologies, enhancing the capabilities of existing systems.

### Robotics and Automation Specialist (Project Based)

Jan. 2023–Apr. 2024  
Calgary, Alberta

#### E-Pro Bot

- \* Developed "Override," an app designed to make delivery robots more efficient and user-friendly, ensuring seamless integration with their operating systems.
- \* Optimized processes using ROS, creating intuitive interfaces for robot navigation and task management.
- \* Integrated robots with already existing nursing call system partnering with PX solutions, Edmonton

## PROJECTS

### Autonomous Guided Vehicle (Capstone Project) | Python, ROS, PlcNext, BPC

May 2023–Apr. 2024

- \* The research and development were fully financially sponsored by PLC Next company including manufacturing and equipment.
- \* Led a team through engineering design, CAD modeling, hardware sourcing, assembly, and programming to develop an AGV.
- \* Visualized GitHub data to show collaboration

## TECHNICAL SKILLS

**Languages:** Python, C/C++, Major PLC Programming Languages, KRL (Kuka), KAREL (Fanuc)

**Developer Tools:** Git, Docker, VS Code, Visual Studio, PyCharm, Android-Studio, TwinCAT, ROS, Gazebo, Postman, Any Linux OS (Ubuntu, Arch, Debian, RedHat)

**Hardware Skills:** 6-axis Arms, AGVs, AMRs, Resutrant Serving Robots, 3D Printers, PLCs, HMIs, Lidars, Safety curtains and related automation equipment