

PAWANDEEP KAUR

✉ Pwnwahla@gmail.com

☎ +1 437 974 1223

📍 Scarborough, ON M1W 2B4

PROFESSIONAL SUMMARY

Detail-oriented Mechanical Designer with hands-on experience in CAD modeling, manufacturing support, quality inspection, and production optimization. Proven ability to translate engineering concepts into manufacturable designs, develop accurate technical documentation, and collaborate effectively with cross-functional production and quality teams. Strong foundation in mechanical systems, GD&T, fixtures/jigs, and machining processes, supported by practical shop-floor and design exposure. A highly motivated and quick learner, eager to expand technical expertise, adapt to new tools and technologies, and contribute to innovative engineering solutions. Demonstrates strong problem-solving skills, attention to detail, and a proactive approach to continuous improvement. Seeking an opportunity to grow within a dynamic organization while delivering value in mechanical design and product development.

SKILLS

- **Mechanical Design & Engineering**
 - Mechanical Component & Assembly Design
 - Design for Manufacturability (DFM) & Design for Assembly (DFA)
 - GD&T, Tolerance Analysis & Stack-Ups
 - Engineering Drawings & Technical Documentation
 - Fixture, Jig & Tooling Design
 - Machine Building, Alignment & Installation
- **Manufacturing & Machining**
 - Manual & CNC Machining (Lathe, Milling)
 - Injection Molding Process Support
 - Sheet Metal & Fabrication Basics

EXPERIENCE

Gay Lea Foods - Package Handler

North York • 01/2024 - 10/2025

- Set up, operated, and monitored injection molding machines to produce high-precision plastic components.
- Performed mechanical adjustments, mold changes, and routine preventive maintenance to ensure machine readiness.
- Identified and troubleshooted mechanical and process-related issues to minimize downtime and scrap.
- Verified part quality using visual and dimensional inspection tools in accordance with work instructions.
- Maintained production logs, shift reports, and basic process documentation.
- Followed safety standards, lockout/tagout procedures, and quality requirements in a high-volume manufacturing environment.
- Collaborated with maintenance, quality, and production teams to support continuous improvement initiatives.

Hydax Private Limited - CAD Designer

Ludhiana • 02/2022 - 03/2023

- Created and modified 3D part and assembly models in SolidWorks based on engineering and manufacturing requirements.
- Prepared detailed 2D drawings with dimensions, tolerances, and GD&T for production use.
- Updated legacy drawings and specifications to reflect design and process changes.

- • Material Selection & Manufacturing Processes
- • Hydraulic & Pneumatic Systems Assembly
- **Quality, Inspection & Reliability**
- • PC-DMIS (CMM Inspection - Fundamentals)
- • Precision Measurement (Calipers, Micrometers, Gauges)
- • Dimensional Inspection & First Article Inspection (FAI)
- • Root Cause Analysis & Troubleshooting
- • ISO 9001 Documentation Support
- **Shop, Safety & Professional Skills**
- • Hand & Power Tool Proficiency (Tool Ownership)
- • Strong Mechanical Aptitude & Problem-Solving
- • Production Line Support & Process Optimization
- • Cross-Functional Team Collaboration
- • Safety Compliance & Industrial Best Practices
- • Travel & Height Readiness

EDUCATION

Khalsa College Public School
Amritsar (Punjab) • 07/2021
High School (Physics & Mathematics)
• Completed in 2021 with 80%

Cyber Defence Institute
Chandigarh • 08/2023

Diploma: Penetration Testing

Khalsa College Public School

- Developed BOMs and supported revision control and engineering change documentation.
- Reviewed designs for manufacturability and assembly feasibility, resolving issues prior to release.
- Coordinated with production teams to clarify drawings and support shop-floor execution.

Threatsys - Cybersecurity Trainee

Amritsar • 09/2021 - 08/2022

- Assisted in monitoring network traffic and identifying potential security threats using basic security tools.
- Performed vulnerability assessments and supported penetration testing activities on web applications and systems.
- Learned and applied fundamental cybersecurity concepts including network security, encryption, and authentication.
- Conducted basic security audits and documented findings with recommended corrective actions.
- Supported incident response activities by analyzing suspicious activities and reporting security events.
- Gained hands-on experience with tools such as Nmap, Wireshark, and Burp Suite for scanning and analysis.
- Assisted in testing system defenses by simulating simple cyber-attack scenarios under supervision.
- Maintained documentation of security tests, vulnerabilities, and remediation steps.
- Collaborated with team members to improve system security and follow best practices.
- Followed cybersecurity standards, ethical guidelines, and data protection protocols.

TECHNICAL PROJECTS

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Custom Sandwich Assembly Jig - Freelance Mechanical Design

- Analyzed production workflow to identify inefficiencies and ergonomic issues.
- Designed a custom mechanical jig to improve assembly speed, consistency, and repeatability.
- Created detailed 3D CAD models and 2D fabrication drawings using SolidWorks.
- Selected suitable materials based on strength, durability, and food-safe considerations.
- Machined aluminum and steel components using lathe and milling operations. • Validated jig performance through trial runs, achieving improved throughput and reduced handling time.

Golf Ball Sorting & Transport System

- Conceptualized and designed an automated mechanical system for sorting and conveying golf balls.

Amritsar (Punjab) • 07/2021

High School Diploma

High School (Physics & Mathematics)

- Completed in 2021 with 80%

CERTIFICATIONS

CSWA - SolidWorks Associate

Certification | June 2025 | ID: C-YV8EK3T2BC

- Developed CAD models and mechanical layouts, including shafts, gears, and support structures.
- Performed basic gear ratio and motion calculations to ensure smooth and reliable operation.
- Assembled mechanical components and aligned drive mechanisms.
- Integrated mechanical sensors for ball detection and controlled movement.
- Tested system functionality and refined design for reliability and ease of maintenance.

Precision Milling Fixture

- Designed a dedicated CNC milling fixture to securely locate and clamp irregular components.
- Applied GD&T principles to ensure accurate positioning and repeatability.
 - Incorporated adjustable clamps and locating features to reduce setup time.
- Produced detailed fixture drawings for manufacturing and shop-floor use.
- Conducted test machining runs to validate fixture rigidity and accuracy.
- Achieved improved part consistency and reduced scrap rate.

C-Clamp Fabrication

- Planned manufacturing steps from raw material to finished component.
- Performed turning, drilling, tapping, and threading operations using manual machines.
- Applied proper tolerances and surface finish requirements.
- Conducted dimensional inspection to verify compliance with drawings.
- Documented process steps and inspection results.