

**Objective: Provide Mechanical and Industrial Design Consulting services.**

## **PROFILE**

- Fourteen years' professional experience, with strong education in plastics and mechanical engineering.
- Certified Professional Technologist with ASTTBC.
- Exceptional problem solving skills and a strong technical aptitude.
- Highly skilled 3D CAD operator with ten years of SolidWorks experience.
- Proven effectiveness in coordinating and teamwork.
- Specialized in electro-mechanical design, injection molded part design, design for assembly and design for manufacturing.

## **PROFESSIONAL EXPERIENCE:**

### **Project Coordination**

- Developed project time lines using MS Project and successfully organized timber frame projects to meet construction deadlines.
- Coordinated the design, manufacturing and installation of custom timber frame projects with structural engineers, architects, builders and clients.
- Provided Production and Site Raising guidance and technical support.
- Engineered solutions in several technological areas including plastics, mechanics and optics under limited supervision and with broad task objectives.
- Managed multiple technical design projects at once, championed various 8D problem solving investigations, led a product DFMEA team and a Program Management software evaluation team.
- Created innovative product designs that balanced ergonomics, manufacturing and product costs, aesthetics, assembly efficiency, functionality, mechanical, thermal and environmental requirements.
- Managed the entire design process from developing 3D concept CAD models, selecting materials and manufacturing processes, ordering and evaluating prototypes, generating engineering drawings, submitting RFQs, developing cost reduction strategies to testing physical prototypes.

### **Design & Development**

- Designed complete timber frame packages including custom wood joinery and steel connections for high end residences using CADWork 3D modeling software.
- Engineered complete mechanical packages for electronic modules for Ford, GM, Alcoa, Autocar, Caterpillar, Freightliner, Meritor Wabco, Blue Bird, Peterson Manufacturing Co., and Western Star.
- Designed custom injection molds using SolidWorks and Personal Designer.
- Designed plastic parts for injection molding, extrusion, thermoforming, blow molding, compression molding, die cutting, and rapid prototyping using SolidWorks, MoldFlow Xpress and OptisWorks.
- Created metal part designs for die-casting, extrusion, stamping, hydro-forming, die cutting and CNC machining.
- Developed graphic designs for private labeling, automotive gauges, control panels, membrane keypads, instruction manuals and packaging using CorelDraw software.
- Designed and drafted custom roof and floor systems for residential and commercial buildings using Trusplus 4.25, Generic CAD 6, AutoCAD LT, and PLAN-IT 95

# CURTIS JAMESON

P: 250.354.2009

1473 Granite Rd. ~ Nelson, BC ~ V1L 6T5

E: [info@i4D.ca](mailto:info@i4D.ca)

---

## Troubleshooting & Problem Solving

- Analyzed non-conforming products using the 8D method, plastics knowledge, mechanical engineering knowledge and design experience to develop solutions and permanent corrective actions.
- Calculated bending stress, bending moments, deflection, hoop stress, creep rupture, tolerance stack-ups and thermal expansion using conventional engineering calculations to ensure product reliability.
- Simulated ray tracing, illuminance distribution and intensity distribution, using OptisWorks software, to analyze and optimize the illumination of LED backlit automotive gauges and gauge needles.
- Evaluated plastic part defects using polymer chemistry, plastics processing and manufacturing knowledge to determine possible defect causes.
- Conducted FEA studies on module housings and mechanical components using CosmosXpress software.
- Calculated maximum bending moments, shear forces, deflection, and bearing reaction loads for laminated beams and wooden I-beams using Multi 5.2.

## Administration & Training

- Trained and mentored junior design staff in the use of SolidWorks and design best practices.
- Researched Project Management software and compiled reports on features and benefits.
- Implemented the PDMWorks data management software, organized the entire 45,000 file CAD database and managed the vault access and permissions.
- Standardized engineering drawing practices by developing and implementing part, assembly, drawing and engineering material templates.
- Implemented SolidWorks software, developed solid model mold design procedures and trained coworkers.
- Organized, introduced and managed a 'paperless' tool room system for Just-In-Time mold manufacturing.

## EMPLOYMENT HISTORY:

<b>Project Coordinator</b> – Spearhead Timberworks, Nelson, BC	Feb. 2008 – Nov. 2008
<b>Design Engineering</b> – Pacific Insight Electronics, Nelson, BC	Sept. 2000 – Feb. 2008
<b>Injection Mold Designer</b> – Listo Products Ltd., Surrey, BC	May 1999 – Sept. 2000
<b>Industrial Designer</b> – BMP Inc., Vancouver, BC	May 1998 – Oct. 2000
<b>Truss Designer</b> – Selkirk Truss Ltd., Nelson, BC	Apr. 1997 – Aug. 1997
<b>Draftsman &amp; Designer</b> – Pacific Insight Electronics, Nelson, BC	Oct. 1992 – Mar. 1995

## EDUCATION & TRAINING:

**Applied Science Technologist & Technicians of BC Certification:** (Mar. 2004)  
**FMEA Training:** (July 2005), **APQP Training:** (Jan. 2003)  
**SolidWorks Advanced Training:** (Nov. 2003), **PDMWorks Training:** (Feb. 2003)  
**British Columbia Institute of Technology**, Burnaby, BC. Plastics Engineering Technology Diploma (1999)  
**University of Victoria**, Victoria, BC. Completed 2 years of Mechanical Engineering (95-97).  
**Selkirk College**, Castlegar, BC. Completed 2 years of University Transfer for Engineering (93-95).

## HONOURS AND AWARDS:

**BCIT Plastics Technology Award – Top Student** (1999)  
**BCIT Mathematics Award – Top Mathematics Student** (1999)  
**BCIT Student Design Project 1<sup>st</sup> Place Award** (1999)  
**Foundation for Education & Advancement in Technology Bursary** (1998)  
**BCIT Technology Bursary** (1998)  
**Selkirk College President's Honour** (1993, 1994)