

## Curriculum Vitae John Caldwell

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<b>Marital Status:</b>	Married, 1 adult child	44 Uxbridge Road
<b>Health:</b>	Excellent (never sick)	Howick
<b>Interests:</b>	Motorcycles, physical fitness, boating	Ph: (09) 535-7514 (diverts to mobile)
<b>Citizenship:</b>	Dual New Zealand/US	<i>E-mail:</i> john@polari.com

**Career Objective:** *Project Manager, Sales Engineer or Manager, Instrumentation, Control & Automation*

### **Summary of Skills & Experience:**

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- 23 years experience in running a niche market, industrial automation business, including sales, marketing, quoting, design, project management, maintenance
- 5 years experience in teaching electrical engineering
- 2 years experience designing automatic control systems
- MS Office, quotation and tender documentation
- MYOB accounting
- AutoCAD, design of dispensing systems, valves, scales and cabinets
- Visual Basic, real time software for batching and colour matching, modeling
- Networking of Windows based systems to many mainframe systems
- Embedded microprocessor software for PIC microprocessors
- PLC programming, Omron, Keyence
- SCADA system development
- Analogue and digital circuit design
- Documentation, instruction manuals
- Research and development, instrumentation

### **Education:**

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#### ***MS Control Systems Engineering***

#### ***California State University***

Emphasis on electronics and automatic control systems

#### ***BS Electrical Engineering***

#### ***University of Maine***

Emphasis on modelling of feedback control systems

## **Work Experience:**

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**Nov 1984 - current**

**Polar Instruments Ltd.**

**Owner**

### Responsibilities:

- ❑ Founder, industrial automation & manufacturing business
- ❑ Developed niche market for ink dispensing machines for printing and packaging industry
- ❑ Sales and marketing
- ❑ Design, electronic and mechanical
- ❑ Software, Visual Basic and imbedded microprocessor
- ❑ Project management
- ❑ Staff management
- ❑ Web site development

### Products / solutions:

- ❑ Autobatch automatic dispensing systems, paint, ink, dye
- ❑ Polar industrial I/O module system (replace PLC)
- ❑ InkSurf estimating software for printers
- ❑ MatchColor colour matching software
- ❑ Flow fluid flow simulation software

### Achievements:

- ❑ More than 20 years of business success
- ❑ Over 200 installed systems
- ❑ Exports to 9 countries
- ❑ Laser Video Analyser, an ongoing project, (patent pending)
- ❑ Grader, software and electronics for fruit graders
- ❑ Crane, software and electronics for crane safe load alarm
- ❑ State Display Interface (SDI) SCADA software package for Fisher and Paykel
- ❑ Electric vehicle control system
- ❑ Robot arm control system
- ❑ 24 bit sigma delta A/D load cell circuit card
- ❑ 8 bit opto. isolated digital output circuit card
- ❑ 8 bit opto. isolated digital input circuit card
- ❑ Polar I/O system communication protocol

**Oct 1979 - Nov 1984          Manukau Institute of Technology**

**Senior Tutor Electrical Engineering**

*Responsibilities:*

- ❑ Electrical engineering
- ❑ Mathematics
- ❑ Physics
- ❑ Microprocessor programming
- ❑ Basic programming
- ❑ Automatic Control Systems
- ❑ Instrumentation

*Achievements:*

- ❑ Developed hardware and software teaching aids to teach the principles of PID feedback control
- ❑ Developed seminars in microprocessors and fibre optics
- ❑ Authored a text for teaching automatic control theory

**March 1977 - Sept 1979          Pye Manufacturing Ltd.**

***Project Engineer Industrial Automation***

*Responsibilities*

- ❑ Preparation of quotation and tender documentation
- ❑ Technical presentations to customers
- ❑ System design, electronic analogue and digital
- ❑ Mechanical design, cabinetry
- ❑ Project management
- ❑ Commissioning
- ❑ Instruction manuals

*Achievements:*

- ❑ Freezing carton tunnel
- ❑ Data logger
- ❑ Automatic power factor correction
- ❑ Humidity measurement
- ❑ Automatic weighing
- ❑ Refrigeration compressor microprocessor control