

Walker Sloan – SUMMARY

Mechanical design and development of medical devices, from product specification and concept through manufacturing. Interdisciplinary/interdepartmental communication. Vendor evaluation and high-tech component sourcing. Analysis of persisting or unprecedented problems. Technology/feasibility studies. SolidWorks.

“The lowest cost product is that which starts down the right path. Technical feasibility is only part of choosing that path.”

EXPERIENCE

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| 2009-2010 | Consulting Engineer Medical Device Development | Logic Product Development, Maynard, MA <ul style="list-style-type: none">Design and build fully functional prototype for an automated trans-dermal injection system. |
| 2009 | Consulting Engineer Medical Device Development | Bridgemedica, Walpole, MA <ul style="list-style-type: none">Product concept and fab test system for components in an extracorporeal blood handling device. |
| 2007-2009 | Consulting Engineer Molecular Biodetection Device | BioScale, Inc, Cambridge, MA <ul style="list-style-type: none">Design and pilot production of fluidic interface mechanisms to a MEMS detection chip. |
| 2001-2007 | Principal Engineer Medical Device Development | EXACT Sciences Corp, Marlboro, MA <ul style="list-style-type: none">Molded microplate disposables, including bonded filter plate.Electrophoresis systems.Microfluidic sample divider. |

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| 1994-2001 | Consulting Engineer Medical Device Development | Exact Laboratories Inc. Maynard, MA <ul style="list-style-type: none"> ○ Microfluidic device and centrifuge. ○ Sample collector. Patented. ○ High amplitude shaker and cabinet for stool homogenization. |
| 1994-1996 | Consulting Engineer Medical Device Development | P.D. Co-op, Inc. Gorham, ME <ul style="list-style-type: none"> ○ Drug infusion pump system design. ○ Coil winding tool for coil with concave surface. |
| 1990-1994 | Principal Mechanical Engineer Engineered core products and supported GMP manufacturing in a PAP smear slide preparation device. | Cytec Corporation Marlboro, MA <ul style="list-style-type: none"> ○ TransCyt® filter product with bonded polycarbonate membrane. Patents. ○ Microscope slide handling system. ○ Specified interactive testing of cervical cell pools, filters, and ThinPrep® unit. ○ Robotic automation unit for cytological slides with unique safety features. |
| 1990 | Consulting Engineer Eliminated problem aspects of laser drum plotter designs. | Optronics Corporation Chelmsford, MA <ul style="list-style-type: none"> ○ Eliminated redundant positioning components, solved recording drum mis-registration, and drive train vibrations in four different laser drum plotter products. |
| 1984-1989 | Part Time Consulting Engineer Provided mechanical concepts, design and prototyping for state-of-the-art Blood Pressure metrology research. | Joseph Seale Consulting Engineering Gorham, ME <ul style="list-style-type: none"> ○ Two-axes sweeping, servo-aimed ultrasonic transducer and arterial vibrator for non-invasive blood pressure metrology, for Critikon/J&J. ○ Radial artery external pulse-force transducer incorporating an EKG device to measure blood pressure pulse wave transit time from systole to arrival of the pulse wave at the radial artery. ○ Intraocular pressure transducer design. |
| 1980-1989 | Wang Laboratories Incorporated - Lowell, MA | |

1985-1989 **Section Manager** - Evaluated 20 OEM magnetic and optical mass storage devices for incorporation into Wang product lines

1982-1984 **Principal Mechanical Engineer** - Managed R&D program for dot matrix print heads.

1980-1981 **Senior Mechanical Engineer** - Hired and managed mechanical design group for disk drives and test equipment.

1970-1980 **Digital Equipment Corporation - Maynard, MA**

1972-1980 **Mechanical Design Engineer** – Designed disk drive products and servo writers, incorporating microinch accuracy transducers and actuation.

1970-1971 **Production Engineer** - Transferred three disk drive products from design into manufacturing.

1969 **RCA Information Systems – Marlboro, MA**

Production Engineer - Manufacturing methods, flow, and layout for disk magnetic recording heads.

PERSONAL PROJECTS

Wind energy systems (bearings, blade fab)
Underwater habitats (film bonding, marine eng)

EDUCATION

1968 Bachelor of Science – Physics
MIT, Cambridge, MA