

David Robert Dodds



1720 Marshall Rd, TRLR 25, Boulder CO 80305 (510) 928-9259, david@svtenacious.com

Objective: Seeking a part time, permanent or contract position as a Mechanical Design Engineer in Product Design, R & D, and/or Product Manufacturing (Process and Tooling).

Career & Skills Summary: Over thirty years experience in design and manufacture of mechanical, electro-mechanical, opto-mechanical products and tools for disk drive, telecom and consumer applications.

- ✓ Experienced with machine, die cast, injection molding, sheet metal, progressive die, PCBA, FPC, high and low volume, and prototype processes. Creative design and problem solving solutions.
 - ✓ Products designed integrating - mechanical, electrical, marketing, and customer requirements.
 - ✓ Worked extensively on state of the art and critical component programs.
 - ✓ Educating in and utilize design for manufacturing principals (DMF) for all components and assemblies.
 - ✓ Tools designed for engineering design verification, pilot manufacturing and production assy.
 - ✓ Process development for manufacturing including tooling, documentation, software and database design.
 - ✓ SolidWorks (15+yr), Cosmos (FAE), ProE (6+yr), AutoCAD. CAD Administration 15 yrs.
 - ✓ Experienced with mechanical lab testing, mechanical inspection and precision machining.
 - ✓ Responsible for facility layout and design for 4 engineering office/labs.
-

David Dodds Mechanical Design LLC, Colorado

Mechanical Engineer: November 2012 to Present, & December 2004 to February 2007,

- Client products have included, Opto-Mechanics, LED Lighting, Telecom, Optical Disk, Metrology, Airborne instruments, Sporting Goods & Equipment, Process tooling, Contract Manufacturing, Medical. I own licensed, current SolidWorks with maintenance. Portfolio at www.mechanical-design.biz
- Additional Contract Mechanical Design Projects, Part time, 1980's & 1990's

Vergent Products (Formerly Technology Driven Products), Loveland Colorado

Mechanical Design Engineer, Mechanical Manufacturing Engineer: May 2008 to Oct 2012

- Mechanical design and support on approximately 20 products including - 3000 sq ft CFL test lab, point of use alcohol monitor, molten aluminum process sampler, gonio-photometer, oil field testing transceiver, windmill alternator assembly, prosthesis printer, solar panel controller, and solar panel cutting fixture.
- Design of assembly tooling for over 100 products. Designed PCBA tools including - SMT, selective solder, back add solder fixtures, test and pogo fixtures. Designed box build tools including – Assembly aids, alignment tools, inspection equipment and process development. (50% ProE, 50% SolidWorks).

InPhase Technologies Longmont, Colorado

Opto-mechanical Engineer: August 2006 to May 2008

- Design of mechanical and opto-mechanical subassemblies for holographic optical disk drive. Designs included kinematic mechanism for Field Replaceable Laser Assy, and athermalized collimation mechanics (sub-micron stability, including optical athermal analysis).
- ProE Cad Administrator, 14 users (occupied about 5% of my time).

Sailing Sabbatical, Pacific Ocean

Captain, Ships Engineer, Web Designer, High School Instructor: June 2005 to August 2006

When Infineon closed in Longmont, I took 14 months off work to sail from San Francisco Bay, down to Mexico and back. Sailed and lived aboard a 44' sailboat with my family.

Infineon Technologies (Formerly **Siemens**), Longmont Colorado

Mechanical Engineer: June 1998 to Nov 30, 2004 (Facility Closed)

Mechanical design of fiber optic transceivers and opto-mechanical components.

- Lead mechanical engineer for new iSFP transceiver. Design included die cast, injection molded, sheetmetal, and PCB components (2 patents). Production manufacturing transferred to Czech Republic.
- Sole mechanical engineer for prototype 10G XenPak transceiver. Product transferred to Berlin.
- Sole mechanical engineer for SFF VF45 transceiver. Patent granted on fiber to fiber alignment. Mechanical design & pilot manufacture of miniature integrated optical components.
- Lead mechanical process engineer for assembly of optical head Assy. Product was designed by customer with significant input from our team. I was responsible for Infineon component assembly, assembly tooling, and process database development.
- Database design and Visual Basic programming to support additional pilot programs on site.

- Sole mechanical design engineer for numerous optical sensor/head proposals. Potential customers included NEC, MKE, Mitsubishi, HP, Elantec, Phillips, Sanyo.

CAD administration and mechanical lab setup.

- Procured and setup SolidWorks CAD system. Managed SolidWorks and Cosmos CAD/CAE design system with fixed and floating licenses. Up to 12 users, 5 to 7 full time.
- Setup mechanical lab, including inspection equipment and a small machine shop.

OR Technology, Boulder Colorado (formerly **Optics Research Inc., Iomega Corp. & Bernoulli Optical Corp.**)

Mechanical Engineer: November 1986 - May 1998 (OR Technology ran out of funding)

Research & Development, mechanical design and manufacturing process development for magnetic disk drives, optical disk drives and optical head assemblies.

- Lead mechanical engineer for miniature optical tracking sensor in a magnetic disk drive (OR A3). Designed 6 axis assembly fixture and process used to assemble sensor into drive. Tool was used for engineering evaluation in US and pilot manufacturing in Japan.
- Lead mechanical design engineer for Iomega floppy disk drive (Io20S). I was responsible for the mechanical architecture and design, including complete layout of the drive and detail for many of the components. I integrating all interdepartmental requirements (mechanical, optical, electrical, marketing, and manufacturing) into the drive. This program required extensive travel and negotiation with overseas manufacturing partners.
- Responsible for the mechanical design and architecture of an optical disk drive which used flexible storage media. I have 4 U.S. Patents on design on this product.
- Procured and managed our CAD systems for 10 years, final 2 years were ProE.
- I set up a fully equipped engineering machine shop and the mechanical engineering lab.

Storage Technology Corporation, Louisville, Colorado;

Development Engineer: 10/85 - 11/86 Tape Drive

- Designed engineering tooling for fabrication of a thin film magnetic tape head (3480, 18 track).
- Reassigned to manufacturing, specified process and set up of CNC slicing saws for the tape head.

Development Engineer: 8/82 - 12/84 Optical Disk Drive

- Designed precision opto-mechanical components used to mount lasers, mirrors, prisms and lenses used in the 7640 Optical Drive. I also designed pilot manufacturing and lab tooling.

Information Storage Incorporated, Colorado Springs, Colorado;

Mechanical Engineer: 1/85 - 10/85

- Designed optical head for both full and half high 5¼” disk drives. Designed hardware for lab equipment, assembly tools and servo writers. Manufacturing engineer for 525WC Optical Disk.

International Business Machines Corporation (IBM), San Jose, California;

Summer Engineering Intern: Summer 1981

- Process Engineering involved in the manufacture of slider assemblies for disk storage systems (3370, 3380). Adjusted manufacturing tools and performed qualification tests on materials.

Education:

University of California, Berkeley, California
 BS Mechanical Engineering, June 1982, GPA 3.48/4.00
 Emphasis in Mechanical Design and Process
 Member Pi Tau Sigma, Mechanical Engineer Honor Society
 Member Tau Beta Pi, National Engineering Honor Society

Diablo Valley College, Pleasant Hill, California
 Engineering and General Education, GPA 3.70/4.00
 Honors List 6 Semesters

Personal

U.S. Citizen, Birth Date: March 10, 1957

U.S. Patents

5,012,463	Optical Head for WORM Drive
5,077,726	Optical Disk Cartridge w/ Flexible Media
5,101,385	Optical Head for MO Drive
5,293,287	Apparatus for Stabilization of Flex. Opt. Media
6,682,231	Optical Subassembly Method for Fiber to Laser
6,997,622	Mode Indicator for Transceiver Module
7,625,135	Dual Configuration Transceiver Housing

This resume is already too long: References, Salary History and Preprofessional work experience Available by Request