

KENNETH C. MILLER

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SUMMARY

- **Sr. Mechanical Engineer** – specializing in Robotics, Mechanisms and Systems design with proven success in a broad range of industries including Semiconductor, Disc Drive, Automation and Surgical Robotics.
- Hands-On design of complex systems and mechanisms (robotics, automation, vacuum, process, semi, medical).
- Thrives in start-up situations and excels in taking ideas from concept to reality – Full Life Cycle Ownership.
- Self-motivated with outstanding creative and communication skills.
- Positive, can-do attitude with ability to get things done - quickly and accurately!
- Extensive knowledge of manufacturing processes and Far East production.
- Expertise in: mechanical design, complex mechanisms, systems architecture, automation, process equipment, high-vacuum, high-volume, 3D printing, prototyping, injection molding, tooling, material selection, components and vendor management.
- Excellent team management skills - hands on style - leading teams up to 50 individuals.

TECHNICAL SKILLS

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|--------------------------------|--------------------------|-----------------------------|
| • Sketching (with a pencil!) | • Pneumatics & Actuators | • High Vacuum |
| • Electro-Mechanical Design | • Motors & Bearings | • Prototypes & Mock-ups |
| • 3-D Modeling (SW & Inventor) | • Gearboxes & Mechanisms | • Planning & Presentations |
| • Inventing | • Assy & Troubleshooting | • Time and Budget Estimates |

PROFESSIONAL EXPERIENCE

CutThroatRobotics, LLC, Aptos, CA (www.cutthroatrobotics.com)
Mechanical Engineering Consulting (sole proprietorship LLC)

2012 – Present

Mechanical Engineering Design (SolidWorks and Inventor)

- Clients include: Gener8 (medical devices), Arevo (continuous fiber 3D printing), Cordance Medical (brain therapy), Seismic (powered clothing), ZOZ Robotics (robot games), Verb Surgical (surgical robotics), SRI International (robotics group), PlasmaSi (low vacuum RF plasma system design), Flexstar (disc drive automation), Isomation (vacuum transport systems)

XYRATEX and OLIVER DESIGN, Fremont, CA / Scotts Valley, CA

Capital Equipment – Disc Drive (large corporation - acquired Oliver Design in 2005)

Mechanical Engineering Manager, Senior Systems Engineer

2009 – 2012

- Managed a team of 15 Mechanical Engineers on a \$30 M project - automated disc drive test for fully assembled hard disc drives. This included travelling to Malaysia to lead the transition from prototype to production.
- Led team of 8 Mechanical Engineers on a \$10M project - automated optical disc inspection system for glass substrates including travel to the Philippines to support prototype systems in a production environment.
- Ensured project timeline was met by hiring 5 contractors in 5 days.
- Managed teams and projects on time and within budget.
- Established and implemented new PO process to achieve \$200K in open POs to vendors in 2 months.

Director, Engineering / Director, Development Engineering (Oliver Design)

2003 – 2009

- Directed a team of 50 Engineers with 5 direct reports in multiple departments including Electrical, Mechanical and Software Engineering as well as Document Control and Technical Publications for the development of an upgraded substrate cleaning system for the disc drive industry.
- Enhanced substrate cleaning process including disc handling automation, sonics, scrubbing and drying resulting in many innovations including 6 invention disclosures, and 2 patent applications.
- Personally designed new Dryer Module for dual hand-off and improved process capabilities.
- Optimized efficiencies in electrical engineering department by transitioning to autocad electrical design software.

POWERFILE / STARMATIX, Los Gatos, CA
Data Storage – High Volume DVD Changer (Start-Up)

1999 – 2002

Director, Mechanical Engineering / Founder

- Recruited to take a dual drive 200 disc DVD Changer apparatus from prototype to high- volume production in a start-up environment in 12 months (one patent disclosure).
- Hired and managed a team of 8 Mechanical Engineers to convert from a prototype to production design for injection molding and sheet metal stamping tools made in Korea, with product manufacturing in China.

OLIVER DESIGN, Scotts Valley, CA

1997 – 1999

Capital Equipment – Disc Drive Substrate Cleaning (small, privately held company)

Senior Mechanical Engineer

- Designed and integrated new disc dryer module (Drum Dryer process) into existing automation line in 7 months.
- Developed dual hand-off mechanism for drying substrates
- Sustained engineering for current product line of disc cleaners (O2Ks).
- Created and designed entire new multi-module cleaning system (O1K)

MILLER ENGINEERING, Mountain View, CA

1993 – 1997

Mechanical Engineering Consulting (sole proprietorship)

Mechanical Engineer

- Contracted with clients including Hine Design (high vacuum R-Theta - Z robotic arms), Harmon Kardon (consumer electronics packaging)
- Created many successful and innovative designs for clients.

ADDITIONAL RELATED EXPERIENCE

NOVELLUS SYSTEMS, San Jose, CA

Capital Equipment – Semiconductor PVD (Start-Up)

Senior Mechanical Engineer

KUBIK ENTERPRISES, Saratoga, CA

Consumer Electronics - CD Changer (Start-Up).

Founder, President and Mechanical Engineer

GRENEX / SEAGATE MAGNETICS, Fremont, CA

Capital Equipment – Disc Drive Substrate Sputtering (Start-Up)

Mechanical Engineer

TRILOGY SYSTEMS, Cupertino, CA

Main Frame Computers – Clean Room and PCBs (Start-Up).

Mechanical Engineer

ADCOTECH, Sunnyvale, CA

Semiconductor - High Speed Back End Automation (small, privately held company)

Project Engineer

SIPOS ENGINEERING, Saratoga, CA

Semiconductor – Process and Automation (small consulting company).

Mechanical Engineer

EDUCATION

- **BSME**, University of California at Berkeley, Berkely, CA

PATENTS

- U.S. Patents: 25 issued, many more pending, many disclosures