

Robert L Kaplan dba Pacifico Consulting

4629 Cass Street, Suite 114, San Diego, CA 92109

(858) 483-7947

e-mail: bkaplan.pacifico@gmail.com

web: <http://pacifico-consulting.com/>

SERVICES OFFERED:

Mechanical Engineering in support of R&D, new product development, prototype design, machine design, etc.

EDUCATION:

MSME, San Diego State University, 1985.

BSME, Arizona State University, 1979.

SUMMARY OF WORK EXPERIENCE:

More than twenty (20) of Mechanical Engineering experience, from concept to production, including:

- Design, hands-on development of components, assemblies, and systems.
- Project conceptual development, scheduling, leadership.
- Machining, forming, casting, welding, of ferrous, non-ferrous metals.
- Injection, transfer, compression molding, encapsulation, and casting of plastics, elastomers.
- Mechanisms, gears, bearings, springs, pulleys/belts, cams, etc.
- Electro-mechanical, pneumatic, hydraulic components, systems.
- Motion control: motors, controllers, servo control algorithms, programming.
- Layout, assembly, detail design drawings (GD&T, ASME Y14.5-2009, ASME Y14.5M-1994, ANSI Y14.5M-1982).
- Vendor and customer interface.
- Production methods, processes, equipment.
- Test procedures, equipment.

GENERAL:

- SolidWorks (since 1998), CADKEY 7 (3d, solid, FastSurf), Autocad (2d, 3d, solid), HP-Draft, HP-Holguin, McAuto CAD.
- FEA (SolidWorks Simulation).
- GALIL (motion control), HTML, FORTRAN, BASIC, some Visual Basic programming.
- Registered Professional Engineer, State of California.

SAMPLE PROJECT EXPERIENCE

UNDERWATER & DOWNHOLE PROJECTS

- Development of various fiber optic cables and sensor arrays.
- Components & assys for various proprietary downhole fiber optic sensors.
- Components & assys for downhole fiber optic & wireline sensor design for gas vent leak detection.
- Components & assys for low cost Fiber Optic Surveillance Towed Array.
- Underwater electro-mechanical actuators.
- Continuous fiber-optic sensor and production equipment - conceptual design.
- Fiber-optic sensor packaging, including injection-molded plastic and cast titanium parts.
- Towed-body, active & passive sonar - conceptual hull design, structural and component design.
- Kevlar, Vectran, and steel armor strength member terminations for various electrical and fiber optic cables.
- Underwater electro-mechanical tow cable and support equipment.
- Polyethylene bonding/molding process, production molds for underwater electrical connectors, cables.
- Process to make pressure-proof underwater electrical connectors using elastomer-coated contacts.
- EPDM-molded underwater electrical cable for mine detector, including design of production mold tooling.
- Towed sonar array electro-mechanical couplings.
- Production mold tooling for 13-cable Polyethylene-molded harness assembly for submarine.

MACHINE DESIGN

- Assembly equipment and fixtures for on-cable fiber-optic sensor assemblies.
- Electro-mechanical elevon servo-actuator w/ absolute optical encoder feedback for u/w towed vehicle.
- Hydraulically actuated, helicopter-mounted, dipping-sonar Latch System.
- Control system design, analysis of a tension-controlled payout/takeup cable positioning system.
- Tape winding/unwinding machine (electro-mechanical servo-controlled version), including dancer-arm web-tension feedback, dual servomotor control, Galil PC-based 3-axis controller.
- Electro-mechanical worm-drive control surface actuator for u/w towed vehicle.
- Tape winding/unwinding machine (all-mechanical version), including tension sensor.
- Table-top, low-pressure injection molding system, including molding machines, molds, cooling system.
- Heated vacuum chuck, manufacturing equipment, tooling for production of thick-film ceramic sensors.

PRODUCT DESIGN

- Microprocessor-controlled, actively heated/cooled chemical Reflux Reaction Unit (test tube rack).
- Battery-operated ski boot heater.
- Electrical heater/blower mirror de-fogging device.
- Document feeding, optical and magnetic scanning, and packaging for document verification machine.

EMPLOYMENT RECORD:

8/85 to Present

dba PACIFICO CONSULTING
Self-Employed Consulting Engineer

Clients include:

- L3 ADVANCED PROGRAMS, BURLINGTON, MA.
- GOOGLE MAKANI (GOOGLE [X]), Alameda, CA.
- OCEAN PROJECTS, Willow Creek, CA.
- L3 COMMUNICATIONS, Sylmar, CA.
- US SEISMIC SYSTEMS INC, Chatsworth, CA.
- AMETEK SCP INC, Westerly, RI.
- KOLLMORGEN, Northampton, MA.
- HIFI ENGINEERING INC, Calgary, Alberta, Canada.
- SABEUS, INC, Chatsworth, CA.
- NORTHROP GRUMMAN, Woodland Hills, CA.
- ALLIED SIGNAL OCEAN SYSTEMS, Sylmar, CA.
- AMMERMAN TRAUMA SYSTEMS, Paramount, CA.
- LITTON (Guidance & Control Systems), Woodland Hills, CA.
- BENDIX OCEANICS, INC., Sylmar, CA.
- G&H TECHNOLOGY (Undersea Products), Camarillo, CA.
- ANACOMP INC., Poway, CA.
- PACIFIC VIDEO PRODUCTS, Orange, CA.
- AMBER, Goleta, CA.
- PPG INDUSTRIES, INC (Biomedical Systems Division), La Jolla, CA.
- ALANEX, San Diego, CA.
- ALPINE INTERNATIONAL, Park City, Utah.
- LIGHT SIGNATURES, INC., San Diego, CA.
- AMERICAN LASER CORPORATION, Salt Lake City, Utah.
- AUGSPURGER ENGINEERING, Phoenix, AZ.

8/84 to 12/85

SAN DIEGO STATE UNIVERSITY - Full-time student, MSME.

1/81 to 7/84

HUGHES AIRCRAFT COMPANY (Ground Systems Group), Fullerton, CA — MTS Engineer.

7/79 to 12/80

MC DONNELL DOUGLAS CORPORATION (Douglas Aircraft Co.), Long Beach, CA —
Assoc. Engineer/Scientist.