

# M.E. Solutions

## Product Design Engineering

THE FASTEST PATH TO A SUCCESSFUL PRODUCT DESIGN IS EXPERIENCE

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### INTRODUCTION

M.E. Solutions takes full mechanical engineering responsibility for client new product projects. We have been doing this for years. We have many success stories to our credit. Our work is confidential, has no benefit or overhead costs, and is paid by the actual hours worked. We travel as required.

We specialize in turning marketing concepts into electro-mechanical products with expertise utilizing many processes including but not limited to plastic injection molding, sheet metal, metal extrusions, and metal castings which incorporate electronics and/or mechanisms for motion and articulation.

### PROJECT HISTORY SAMPLE

#### MEDICAL SYSTEMS

##### CliniComp Int'l San Diego, CA

- Designed, prototyped and released for production a portable nurse's station terminal which included castings, gas spring powered articulation, and metal extrusions. 500 units were installed at Sharps Hospital.

##### Digirad Corp. San Diego, CA

- Team member designing Digirad's first gamma scanner product. Marketing concepts designed and modeled for a trade show.

##### Puritan Bennett Carlsbad, CA

- Conducted design requirement compliance studies on all design activities during the development of a new ventilator. Included design analysis, material application analysis, and FDA, UL, IEC, CSA compliance.

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Medstone International

San Diego, CA

- Developed a new "table top" kidneystone lithotripter for removing kidney stones by acoustic shock pulses. Concept to human trials in Chicago was 6 months.

Magnevu, Inc.

Carlsbad, CA

- Mechanical Engineering during the first stage, proof of concept development of a portable office MRI. The product is now shipping and was voted 2003 product of the year by UCSD Connect. Marketed by GE Medical Services.

INDUSTRIAL PRODUCTS

Pacific Coast Equipment

San Diego, CA

- Designed transformer and electric motor coil winding machines.

Elgar Corp.

San Diego, CA

- Designed large 10-30 KVA UPS systems, and programmable power supplies.

Cubic Western Data

San Diego, CA

- Subway Fare Collection Systems and R&D programs for the BART, WAMATA, and Hong Kong mass transit.

Paralan Corp.

San Diego, CA

- Designed SCUSI electronic enclosures and test equipment.

TELECOMMUNICATIONS

Nortel Networks Corp.

Sunnyvale, CA

- Conducted monthly evaluations and critiqued a developing massive fiber optic switching system design.

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DEFENSE

Viasat Corp.  
Carlsbad, CA

- Designed the RF chassis modules for and wrote the environmental test plan and test procedures for the MIDS NATO program. Designed many military VME products and unique RF encrypted transmitters and receivers.

Cubic Defense Corp.  
San Diego, CA

- Supervised engineering for the U.S. Army Miles-2000 Man-worn infantry training equipment program.

SAIC  
San Diego, CA

- Supervising engineer for the Singapore Army Man-worn infantry training equipment program.

Sundstrand Turbomach  
San Diego, CA

- Provided mechanical design of electronic turbine controller assemblies and engine mounted peripherals for the V-22 Osprey, A-12 Stealth Bomber, M1 Tank, LHX Helicopter, KC-130 Tanker, European Air Bus, and the Boeing 737. Conducted qualification environmental testing and production oversight.

CONSUMER

Windriver 1999-present  
San Diego, CA

- Designed numerous consumer products for clients such as Sony, Mitsubishi, and many other companies. Product designs were mostly proof of concept simulated production working models.

Phogenix Corp.  
San Diego, CA

- Worked with international engineering team to develop a second generation commercial photo printer in a joint effort by Kodak and Hewlett Packard.

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