

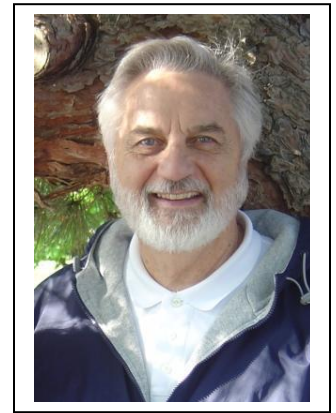
**William (Will) Barkley, BSME, Mechanical Design Engineer** Sht. 1 of 2

Cell: 559-287-9215

**Design software: AutoCAD**

Website: [www.Freedom101Project.com](http://www.Freedom101Project.com)

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**Forty years of mechanical design and engineering experience in Commercial, Agricultural, Aerospace and Defense Industries. Projects include: wrist watches, conveyors, silicon wafer handling equipment, mining/construction equipment, missile launch/test/handling equipment (MX, Polaris), Navy diving capsule and shipboard handling equipment, tomato harvester and farm equipment, test/production tooling and fixtures, capital/process equipment, refinery piping, freeze dry plant piping, sub-sea oil production equipment, small/large mechanisms, etc.**

### **Experience:**

August, 2011 to March 13, 2012: Madera Power, LLC, Firebaugh, (Madera County), CA.  
Writing procedures to comply with FERC, NERC and WECC standards for electrical generating facilities.  
Conduct training for all plant personnel on NERC standards and facility operations.  
Madera Power is a small biomass electrical generating facility producing 24 megawatts for the PG&E grid (Bulk Electric System). Manager: Larry Osborne 559-659-4791

Sept. 2007 to June, 2008. Oct. 2008 to Jan. 2009: Tyco Electronics, Menlo Park, CA.  
Fourth and fifth projects at Tyco Electronics since 1997. The majority of the last 10 years have been at Tyco. Managers: Chuck Wunder 650-361-4416 Wendy Liu 650-361-2455

Dec., 2006 to Sept., 2007: Horn Machine Tools, Madera, CA Kent Horn, Owner 559-431-4131  
40455 Brickyard Drive, Madera, CA 93636 Design software used is AutoCAD 14.  
Mechanical engineer for design of tube and pipe bending machines.

June, 2005-June, 2007: A+Tutors, Clovis, CA (website now shut down) Will & Ardelle Barkley owners.  
An internet based tutoring business. We had over 200 tutors from all over California registered on our website.

Oct. 2002-2005: Tyco Electronics, Menlo Park, CA See Raychem June, 1997  
Begin new design software: TECacad, AutoCAD 2002, AutoCAD MPP, Loaded AutoCAD 2004, January 2004  
Manager: Chuck Wunder 650-361-4416

June, 2002 – Sept. 2002: SW&B Construction, piping engineer on Kimberly-Clark paper plant upgrade in Everett, WA. Contractor is SW&B, Mobile, Alabama 205-972-6000

Jan. 2002- June, 2002: Harder Mechanical Contractors, Inc. Portland, Oregon  
Project engineer for the Leprino Foods Facility at Lemoore, California. Harder is a mechanical/piping contractor. My tasks involve take-offs for piping, instrumentation, control valves and mechanical components; preparing submittals, RFI's, RFQ's and isometric piping drawings. Design software is AutoCAD 2000.

April, 2000- Nov. 2001 Advanced Image Systems, Inc. Morgan Hill, California.  
Tel: 408-782-6204 A.I.S. is a small company engaged in the design, manufacturing, installation and maintenance of 70 mm movie projection systems. (Similar to but better than IMAX) Since this is such a small company my tasks run the gamut from mechanical design and engineering, assembly and testing to securing quotes and working with vendors. Design software is Ashlar Vellum, Vellum 3D 99.

**William (Will) Barkley, BSME, Mechanical Design Engineer Sht. 2 of 2**

June, 1997 – April, 2000 Raychem Corp. Menlo Park, California (Bought by Tyco) Our group, Special Projects Design Team, was primarily involved in the design of manufacturing process equipment for expanding heat shrink tubing after the extrusion and electron beam processes. Functions included; lead designer and supervisor of a small group (3-5 people) for the Site Services Division of Raychem. Design work included mechanisms, sheet metal, weldments, pneumatic and hydraulic systems, schematics, heat exchangers and piping. Ref: Chuck Wunder 650-361-4416  
Software: AutoCAD Rel. 12-14, MS Word, Excel, begin Mechanical Desktop

July, 1996 – June, 1997 Carco Electronics, Menlo Park, California  
Mechanical design of flight motion simulators to test guidance systems for missiles and aircraft. Design work consisted primarily of a single target, two axis positioner for a client in India. My functions included; initial mechanical layout and the supervision of 2-3 drafters in detailing various components and sub-assemblies. Base frame and supports were 1/2 inch thick aluminum plate weldments. The gantry for the moving target was a magnesium weldment. The target support assembly moved horizontally and vertically on an approximate 30 meter spherical radius by means of cables, cable drums and servo motors. Software: AutoCAD Rel. 12, MS Word, Excel

January, 1993 – July, 1996 : NJ Engineering, Inc., San Jose, California  
(NJ was a predecessor company to A.I.S.) Mechanical design of two elevator systems for rolling loop, 70 mm movie projectors for Goto Optical in Japan. The first elevator system was chain driven. The second system was driven by two acme lead screws approximately 12' long. My functions included; layout, mechanical design/engineering, detailing, build, test & debug, shipping, installation and testing on-site in Japan. Other functions were design of production fixtures/tooling and maintaining close liaison with vendors such as sheet metal, welding and machine shops.  
Software: Ashlar Vellum 2.12, AutoCAD Rel 10

Some other projects prior to 1993 include:

McClelland Equipment, Hanford, California: Design of mining cranes and construction equipment. This work involved massive weldments and mechanical components operated by pneumatic and/or hydraulic control systems.

Asyst Technologies, Milpitas, California: Design and transfer to production silicon wafer handling equipment and clean room enclosures. Failure analysis of wafer transport mechanisms.

Stanford Linear Accelerator Center (SLAC) Menlo Park, California: Design of photolithography equipment at the Synchrotron Radiation Lab

Westinghouse Marine Division, Sunnyvale, California: Mechanical design of subsea test equipment for submarine launched missiles.

Aerojet General Corp., Sacramento, California: Tooling engineer for the Missile Launch & Handling Group. Tool design and engineering of handling and test equipment for the MX missile, 2<sup>nd</sup> stage motor. Travel to missile test facility in Tullahoma, Tennessee to prepare for simulated firing and operation of the motor in space.

FMC Corporation, San Jose, California: Design of personnel transfer capsule & shipboard handling equipment for a deep diving submersible for the U.S. Navy.

Patents:	3280195	Apparatus for Inverting Articles
	3541987	Stable Marine Hull (same as U.S. Navy's Stealth Ship built by Lockheed)
	3708991	Submarine Home or Manned Oceanic Monitoring Station
	224001	Sea Room
	227808	Scuba Divers Transport System

Education: BSME, LaSalle University, Mandeville, LA