

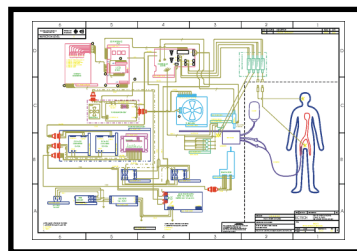
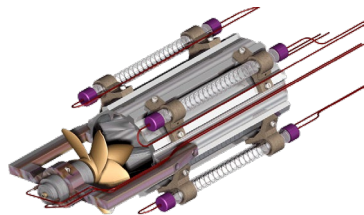
**NICK BARRETT**  
**(865)250-6718**

[www.nickbarrett.com](http://www.nickbarrett.com) & [www.engineeranything.com](http://www.engineeranything.com)

**RESUME**

**420 W. ROCKWOOD ST**  
**ROCKWOOD, TN 37854**

**EDUCATION:** Savanna High, Anaheim CA, 1970, Riverside City College CA, 1977 (digital math & microprocessor), American International University "Pasadena" CA, BSEE 1981 eq/na, Realty Institute 1992- Broker/Grad. **LICENSE:** Electrical Contractors License-CA, 1993 (#670026). FCC/General Radiotelephone Operators License 1979 (#PG-11-10082/lifetime), HAM General Class 1968 (WA6GOQ), Extra Class1997(AD6CI). **TRAINING:** **ROBOTICS**> Intelledex/Oregon-6 axis robotic arms, Cognex/Boston- optical recognition, Hughes Carlsbad - hybrid wire bonding. **LASER**> ESI/Oregon - robotic laser trimming, Quantrad /LA - laser servo scribe. **HIGH VACUUM DEPOSITION**> Materials Research/New York - robotic materials processing. **INSTRUMENTATION**> LabView/SC - measurement & control, Allan-Bradly/Georgia - PLC (advanced), Fluke/LA - ATE sys. integration. **RADIATION SAFETY**> Guidant/CA - Radioactive Materials Isotope P-32. **HYBRID/IC FAILURE DIAGNOSIS**> HiRel/LA - hybrid process analysis. **MANAGEMENT/PRODUCTION DEVELOPMENT**> Century III Electronics/Brea CA - supervisory development & labor law in union & non union shops. General Dynamics/Pomona - Total Quality Manufacturing, (SPC) statistical process control, (TQM) Taguchi Quality Methods, (AAP) affirmative action, union management. Guidant Advanced Cardiovascular Systems (FDA/GMP). **DELEGATE:** National Conference of Standards Labs. **CLEARANCE:** General Dynamics/Pomona CA (84-88) - Confidential. **SOFTWARE SKILLS:** **CAD** - SolidWorks, Inventor, ProE, Wildfire, SolidEdge, Auto CAD , FEA, Cosmos, DesignSpace, LabVIEW, **SCADA** - Intellution, Genesis, Wonderware, etc... PCB - Elect. Workbench-EDA, WinBoard/Draft, OrCAD, Spice (various), Altium, PADS. **PLC/MMI** - Allen-Bradley, Mitsubishi, Keyence, Siemens, etc... **BUSINESS** - SAP, PLM, Office, Visio, etc... **GRAPHICS** - Corel Draw, PhotoShop, Illustrator, etc... MS Office Suite, Visio, SAP, Adobe Suite, Corel, etc...



Lumazon Product Development, Corp.  
Rockwood, TN

**EMPLOYMENT HISTORY**

**Engineering Contractor**  
(Jan 2000 - Dec 2019)

**RESPONSIBILITIES:** Project Management Engineering & New Product Development for Customer Core Products. Electronics, Electrical, Mechanical, CAD, Process/Mfg Engineering, Network, Test & Troubleshooting - HANDS ON, i.e., Siemens, Ametek, Uster, Chase, Nova Controls, Etc... Examples: [www.engineeranything.com](http://www.engineeranything.com) & [www.nickbarrett.com](http://www.nickbarrett.com) & [www.lumazon.com](http://www.lumazon.com)

BC Tech  
Santa Cruz, CA

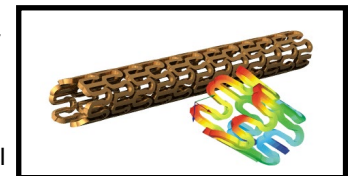
**Director of Engineering**  
(Aug 99 - Dec 99)

**RESPONSIBILITIES:** Director of Engineering, supervising engineers & technicians in product development projects. Directing all activities in concert with customer objectives & according to project planing phases. Conducting design reviews in electronics, electrical, industrial, mechanical, software/hardware design & validation for biomedical & commercial customers. Participate "hands on" in CAD design, electrical systems, test/troubleshooting, in fast paced shop. Advanced technology using ProE, SolidWorks, AutoCad, Cosmos CAD & FEA. ISO9001 compliance thru audits, training, enforcement & documentation, with technical contributions in a wide spectrum of electro-mechanical engineering efficacy, & reliability. "Hands on" circuit design, component selection/sourcing, testing & system level EMI suppression.

GUIDANT Advanced Cardiovascular Systems  
Santa Clara, CA

**Sr Equipment Engineer**  
(July 96 - Aug 99)

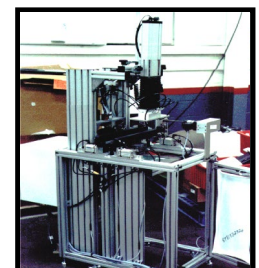
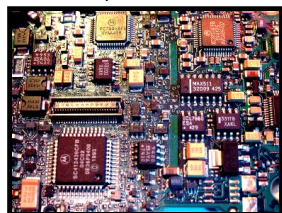
**RESPONSIBILITIES:** Design & coordinate fabrication of equipment, instruments, controls & fixtures for manufacturing, R & D, & marketing, for core products. Serving internal customer requests to develop strategies, give presentations, quotes and timelines, and sell plans to management. CAD design, detail, document & coordinate sourcing, fabrication & assembly through internal & external machine shops & assembly depts. Assist & drive production & process engineers to Integrate competitive advantage with Laser Micro Machining, Chemical Etching/Bonding, ElectroPolishing, Precious Metals Plating technologies & exotic materials.



BOSCH AUTOMATION PRODUCTS  
Buchanan, MI

**Sr Product Design Eng.**  
(May 95 - June 96)

**RESPONSIBILITIES:** Propose new and innovative solutions for various assemblies, mechanisms, modules, & work stations used in the automated conveying and processing of "Printed Circuit Board" assemblies for high volume production operations - such as Motorola, Hewlett-Packard, General Instruments, AT&T, Delco, Ford, etc... Focus on reliability, serviceability, aesthetics, and cost competitive machines. Generate detailed assembly & machine drawings, electrical & pneumatic schematics, B.O.M.'s, drawing trees, cost analysis, in keeping compliance to ISO and ANSI standards. Electronics, electrical, PLC, mechanical design, every aspect of development process. Directing other engineers utilizing advanced machine technology in pneumatics, stepper, servo, PLC control, system integration, etc.



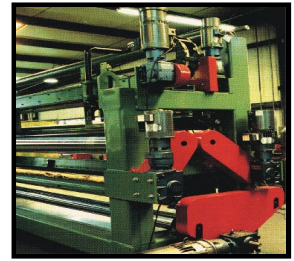
**PERPETUAL MACHINE CO.**

Dalton, GA

**RESPONSIBILITIES:** R&D / Product Development Engineer & Supervisor - Propose, Cost, Design, New Products, & Improve existing "Industrial Machines & Systems". Define & perform R&D experiments, direct machine shop & electrical departments in the progression of prototype through design phase, to completed machines. Supervise, train & direct engineers & technicians in mechanical, electrical, hydraulic/pneumatic, instrumentation, control, & programming. Hands on from customer contact, machine specification, quote prep, through selection of HVAC, AC-DC Drives (inverter, vector, servo), PLCs, programming, power distribution, troubleshooting, documentation. Utilize complete array of PC tools (CAD, spreadsheet, data base, MMI/PLC, network). Staff level Quality, Engineering Design, Documentation, Production Standards, Compliance (UL, CE, CSA, State, Federal, ISO9000 standards). Coordinate/plan maintenance, field service, facility planning, installations, while expand group skills.

**Eng'g & R&D Supervisor**

(Jan 94 - Apr 95)



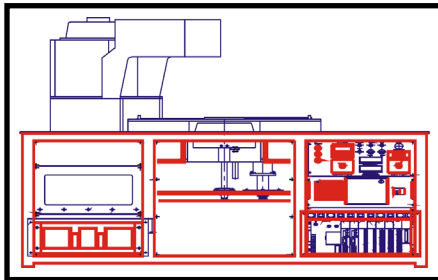
**TAMARACK SCIENTIFIC CORP.**

Anaheim, CA

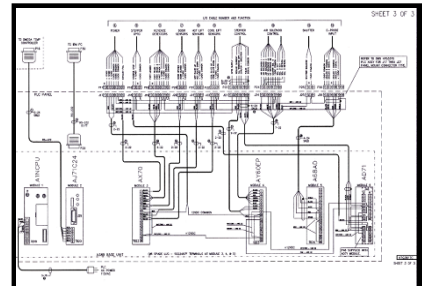
**RESPONSIBILITIES:** Propose, Design, and Document Automated Processing Machines for IBM advanced technology center.

**Sr Project Engineer**

(Feb 92 - Oct 93)



Responsible for the instrumentation, electrical, mechanical, structural, pneumatic, hydraulic, and all other aspects of machine design. Hand render & CAD propose machine components and assemblies, as well as direct the activities of other CAD drafters and designers. Select & incorporate vendors, components, Stepper, Servo, Controllers, standard & harmonic drive power transmission components, instrumentation and process controls for temperature, timing, UV



exposure, pneumatic, electrical/electronics. Project manage machine shop, assembly, test, troubleshooting to completed machine acceptance. Select & integrate PLC (Mitsubishi) Controller system.

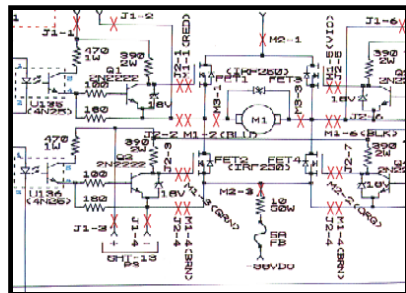
**AUTONOMOUS ROBOTICS CORP.**

Running Springs, CA

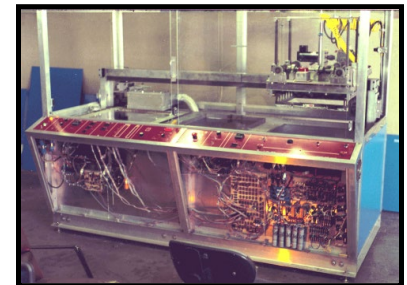
**RESPONSIBILITIES:** Design, propose, build, and modify Automated Machines & Instrumentation to improve production quality and volume. Write technical specifications, preliminary sketches, drawings, & bid proposals for customers. Hands on machine design,

**Chief Engineer**

(Feb 89 - Feb 92)



CAD, mechanical, electrical, electronics fabrication drawing. Primary engineer for Robotic Arms, Autonomous Vehicle, Automated parts processing & handling machines, conveyor systems, high power instrumentation & controls. Design custom digital & analog circuit boards to control servo's, process, sequenc, timing, monitor, interface. Direct all activities of fabrication, assembly, machine shop, and vendors to completion of projects. Technical support to high tech industries and processes for; semiconductor foundry, component mfg's, aerospace, medical device, instrumentation and consumer product industries.



**CERTITECH LABORATORIES INC.**

Running Springs, CA

**RESPONSIBILITIES:** Direct, participate & oversee all engineering of a 2 shift FCC EMC/EMI compliance testing laboratory. Engineer & direct successful compliance of array of electronics products. Interface with & assist customers during testing, directing engineers on pre-production EMC/RFI design considerations, i.e., board layout, clock lines, ferrites, decoupling RC's, grounding, connectors, chassis, shielding, etc... Technical administration, customer relations and support, staff meetings, training, etc... Complete Instrumentation & RF Expertise, required a good working relationship with FCC engineers regarding CFR code part 15J class A & B compliance.

**Chief Engineer**

(Nov 88 - Feb 89)

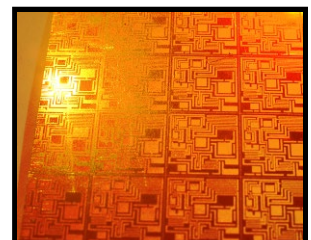
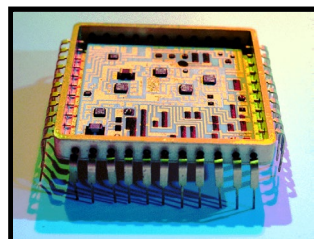
**GENERAL DYNAMICS CORP. (Pomona Div.)**

Pomona, CA

**RESPONSIBILITIES:** Sr Test Engineer & Mfg Development Specialist & Supervisor participating in every aspect of Hybrid Microelectronics Mfg & directly supervising a team of 40 technicians and engineers in support of clean room operations. Hands on support and training of technicians thin film processing (high vacuum evaporative & plasma), photolithography and plating/etching, wire bonding & laser trimming, (SMT) surface mount, thick film screening & high temp processing, seam welding & leak test, laser marking, robotics handling, paperless manufacturing, test and troubleshooting & statistical process analysis. As a 3 shift, 360 man operation. I directed all machine and facilities maintenance in the Hybrid Lab, working tightly with facilities engineering in plant layout, construction & partitioning, plumbing, electrical, and installation of state of the art high tech equipment. Working with assembly and manufacturing personnel in QA, SPC, JIT, and TQM manufacturing.

**Sr Mfg Eng/Supervisor**

(Aug 84 - Nov 88)

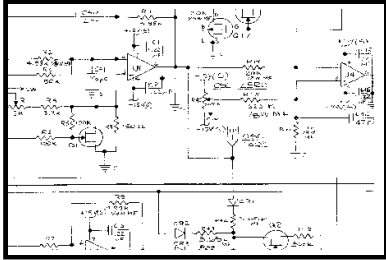




HYLINE ELECTRONICS CORP.  
Anaheim, CA

**Ops Mgr/Chief Engineer**  
(Apr 79 - Aug 84)

**RESPONSIBILITIES:** Direct Operations, business development, marketing, customer service, & acting as Chief Engineer/Metrologist over instrumentation and Design Labs. Hands on participation, & training of technicians in repair to component level and calibration of state of the art test instrumentation and ATE using high accuracy NBS traceable standards



to comply with MIL-STD-45662. Conducted and participated in customer audits for compliance/traceability of test standards, instrumentation, and documentation. Extensive experience in operation, theory, repair to component, and calibration of - Tektronix, Hewlett Packard, Fluke, ESI, WaveTek, Gould, etc. i.e., instrumentation, oscilloscopes, wave/signal generators/ sweepers, DMM's, frequency counters, impedance measurement, linear/switching power supplies, recorders, logic/signature analyzers, ATE test and measurement equipment from DC to Microwave, Analog and



Digital. As Chief Engineer drive all projects for local and off shore manufacturers, design and prototype; linear and switching power supplies, DC to DC, high power AC & DC, stepper & servo controls, signal conditioning, small signal linear, AD/DA, interface, HVAC, HWDC, pulse width modulation, conversion, conditioning, in both discrete and integrated circuit format including art work for board layout. Working with customer personnel and engineers to assist manufacturing integration & train personnel in production & troubleshooting, testability strategies. Direct supervision, staffing, work load scheduling, acquisitions.

CENTURY III ELECTRONICS CORP.  
Brea, CA

**Mfg & Test Eng'g Super**  
(Apr 83 - Sep 83)

**RESPONSIBILITIES:** Test Department Supervisor/Engineer directing activities of 60 technicians, leads, and assistant supervisors for 2 shift, 6 day manufacturing operation. Wide Band RF (10-500Mhz) amplifiers for cable TV products & systems. Produced, directed, participated in Professional Video Training Films on; theory and alignment, systems, RF wave analyzers, sweepers, attenuators, switch gear, test strategy. As a high volume mfg company I was instrumental in transfer of operations and technology from Canada, laid out test dept. facilities, designed test bench & equipment configurations, and made capital equipment acquisitions. Responsible for monitor and control of assembly and test processes, writing critical assembly and test procedures, monitoring assembly technique, i.e., component inspection/testing, board stuffing, solder flow, etc. of a complex and labor intensive product line. Direct customer return depot & field service operations including the scheduling of field engineers, customer contact/ training, and coordination. Responsible for the quality assurance program to ensure specification compliance of purchased components and completed systems, failure analysis, design, performance, and testability, engineering design of switching power in transition from BIPOLAR to CMOS.

AMERICAN ELECTRONICS CORP.  
Fullerton, CA

**Lab Supervisor/Engineer**  
(Sep 77 - Feb 79)

**RESPONSIBILITIES:** Calibration Lab Supervisor over a DCAS acceptance program in an aerospace environment. Generate and maintain records on all test instrumentation and fixtures as well as supervise lab personnel. As design engineer I performed prototype design and fabrication of OEM switching power supplies, stepper drivers, remote camera control circuitry, & centrifuge units in an R & D environment. Switching and linear power supply designs included - OVP, 0-300VDC, 10AMP short circuit proof test systems. These included the complete fabrication of custom control panels and consoles. I also performed design and prototype of - PLL keyed current carrier remote controls for surveillance systems and (UPS) un-interruptable power supply systems sold throughout the world.

CUSTOM POWER CALIFORNIA, INC.  
Orange, CA

**QC & Sr Eng'g Tech**  
(Aug 72 - Mar 77)

**RESPONSIBILITIES:** As "Senior Quality Control & Engineering Technician" I performed prototype electronics/electromechanical, design, layout, test, and documentation of linear and switching power supplies. First article and prototype assembly, engineering and test. Production and test methods development, generation of schematics and mechanical drawings for assembly, test, and drafting departments. In charge of all QC, burn in, and failure mode analysis as well as performing field service and retrofit operations.

GENERAL AUTOMATION INC.  
Anaheim, CA

**Elect's Assy & Test Tech**  
(Jun 70 - July 72)

**RESPONSIBILITIES:** Performed electromechanical assembly, test, and debug of Engineering Prototype computer systems and peripherals - such as line printers, disk drives, card sorters, and tape readers. Performed final test on magnetic core mini computers - from loading of the bootstrap program to running the systems through shock, vibration, and temperature cycling. Test and fault isolation to component level of computer boards as well as ATE evaluation of core memories. I worked with manufacturing areas making wire harness aids/jigs, and assembly drawings/documentation of electromechanical sub-assemblies in support of production.