**Resume of Leonard Olivas**

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**Engineering Profile**

Results-oriented Mechanical Engineer with over a decade of experience designing electro-mechanical systems for Silicon Valley’s pioneering industries, including eVTOL, semiconductors, solar, power systems, and advanced telecommunications. Expert in Siemens NX, Creo, and SolidWorks, with a demonstrated ability to rapidly master complex CAD and PDM tools. Skilled in 3D printing and prototype creation, driving innovative product development from concept to high-volume manufacturing with hands-on expertise in rapid prototyping and production-ready designs. Collaborative and independent contributor, eager to apply a creative, tech-forward mindset to propel transformative projects in a dynamic, innovative environment.

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| **Core Competencies** | | |
| * Precision CNC Machine Design * Complex Sheet metal Design * Plastic Injection Mold Design * PCB Hardware & eCAD integration * Creepage & Clearance analysis * Free form Furniture and lamps | * Knowledge/use of UL, CE, VDE codes * Optimize Design for Mfg/Assy (DFMA) * Tolerance Stack-up analysis & RSS * ASME/ANSI Y14.5M, GD&T practices * 3D Proto/Production Design/Printing (Machine owner & operator) ABS, Petg, TPU, PC, Nylons and Carbon, and Prusa Slicer, Super Slicer configs. | * Liquid Ingress equip IP protection. * Ruggedize Outdoor Sports Equip * eVTOL battery/busbar Design * Semiconductor Equipment Design * Solar off grid equip/battery pack Design, Busbars, micro inverters |
| **CAD Experiences** | | |
| * **Siemens NX 2027**   3d solid modeling/Ref sets, Wave Linker, MBD,  Surfacing, Sheet Metall, Drafting and Detailing   * **Creo 6.0-7.0/(Pro-e)**   Solid/Surface Modeling/MBD  heavy Family Table Assy's/Relations/ Parameters  /Pro-Sheetmetal/Teamcenter/Windchill/PDM/Agile | | * **SolidWorks 2023**   3d solid modeling/MBD/Sheet Metal, Simulation, Piping, sweets, Teamcenter/Windchill/PDM/Agile BOMs |

**JOB Experience**

**Applied Materials,** Sunny Vale, California**. onsite**

**Mechanical Engineer 11/24-02/25**

Responsible for the design, development, and implementation of custom mechanical tooling, fixturing, and associated processes to facilitate the handling, assembly, and/or disassembly of parts, components, and sub-assemblies; developing, designing, or modifying mechanical engineering layouts and detailed drawings; identifying problems and troubleshooting a variety of complex mechanical issues with limited supervision; utilizing NX and Teamcenter for most of the work.

**Avails Medical,** Menlo Park, California. **onsite**

**Mechanical Engineer 4/24-9/24**

Created and Recreated entire mechanical preliminary bio medical product hardware from imported files from On-Shape to Solid Works, rebuilt and fully constrained top and sub-assemblies with slide out semi-mechanized action, created new drawing formats and new sheet metal parts, precision machined parts, plastic injection parts and structurally bolstered and improved 3d printed items and post treatment notes, also created all fully tolerance fab drawing and detailed assembly’s, adding GD&T, Positional tolerance and research & documented RoHS compliant and directive details.

**Wisk Aero/Boeing,** Mtn View, California,**Remote/Hybrid**

**Sr Mechanical Engineer 9/23-4/24**

Designed and developed High power Energy battery mechanical power distribution system for a eVTOL autonomous flying taxi, work close with HVPDU dept designing and documenting 1st phase (block1) with Siemens NX and Teamcenter and Jira,

Included 3D Printed ruggedized structures, enclosures, and access covers, Bus bar and wire routing, External/Internal connection, Piping, custom adapters used on thermal runways system and sheet metal panels, worked with PCB GD&T Position tolerance fit check also was responsible to evaluating entire system Fastener locking features for all sub-assemblies.

**Velo3d Inc,** Campbell, California, **Remote**

**Mechanical Engineer-Designer, 9/22-8/23**

Designed Mechanical solution in development of AM (intelligent metal additive manufacturing), worked with pneumatic conveyance vacuum systems, large semi-mechanized translation frames and interfacing parts, included E-chain cable and flex pipe carriers, spring assisted heavy lid lifts, vacuum chambers and precision CNC and weldments, O-ring groove design also worked on metal powder control vacuum equipment , screens, telescoping vac wands, sifters and hoppers, using Solid works and Agile-PLM (XPLM) software.

**Yousolar Inc** Santa Clara, California, **Onsite** **4/21–2/22**

**Mechanical Engineer (Full Time)**

Lead Design of Solar Power support equipment from Concept to Proto/Production, Solar Battery, Inverter, Rectifiers, power interface controllers and complex Sheetmetal Stackable Chassis systems development and prototype procurement, created Busbars, Terminal connections, heavy 150-amp cabling, Power/Sig Connectors and 19” rack panel mounted equipment design 2U – 5U.

**Siemens Industry, Inc** Sacramento, California, **Remote/Hybrid 10/19–09/20**

**Mechanical Engineer-Designer 4**

Involved in Design and customization of Coach Cars for the heavy rail/rolling Stock industry, task included incorporation and installation of external door components like Double sliding Steps, Sliding Plug doors, wheelchair Lifts into existing Car shells, worked with Vendor supplied 3d exchanges from very large 3D step/Iges files to Creo 3d, created assemblies drawing, BOMs and SAP ECO,s for production. Creo Models included Machined SST, Sheetmetal part designs and detailed per ISO or ANSI standards.

**Cisco Systems, Bldg1** San Jose, California **Onsite** **12/18 – 10/19**

**Mechanical Engineer**

Mechanical product design/development

Working closely with the engineering teams to design and schedule resources/hardware. Deliver practical solutions and concepts during brainstorming sessions. Regularly reviewed and provided feedback during PCBA development process using DXF/IDF exchange methods. Designing PCBs, stand-alone chassis, modular chassis, and hot-pluggable modules. design sheet metal, injection molded plastic, swept light pipes, labels, and machined parts using Creo 4.0. Applied knowledge of mechanical principles and of product development, including prototyping and high-volume manufacturing

**Chargepoint,** Campbell, California **Onsite** **10/17 - 12/18**

**Mechanical Engineer**

Work on E-car Charging Equip for production and some tooling fixtures.

Task involved DFM oversee, updates on Injection molded parts including strain relief, Alum Casted charge Holsters.

Also work on Installation Guide Cad Image outputs, worked with Creo 3.0 Cad packages and tooling in NX 12,

Included modeling of complex surfaces and precision machined parts, sheet metal and some drafting.

**Lam Research,** Fremont, California **Onsite** **4/16 – 10/17**

**Mechanical Engineer**

Mechanical CVD Shower head design, for vac environment, sheet mtl chassis design, weldments, seal/material design & selections, presented DDR’s, fixture tooling design. (***see Lam Research below for similar assigned task and experiences using Creo 2.0).***

**Siemens Industry, Inc** Sacramento, California, **Onsite** **02/14–02/16**

**Mechanical Engineer-Designer**

Was deeply involved from concept to production of High-speed heavy rail Coach and floating floor systems and worked with and selected vibration isolation materials and alum extrusion included DFM feedback, developed a seat and table mounted floating rail system with wiring/grounding provisions, also lead the design of a scaled coach fire test specimen from SST welded Carshell to floor pipe and cable connection penetrations, high temp insulation and intumescent material.

**Selected accomplishments:**

* Developed Heavy Rail Passenger Coach Floating floor & Seat mounting system.
* Produced a Mechanical fire test specimen of Scaled Coach per ASTM E119 (30 min 843°c fire test)

**Cisco Systems, bldg. F** (contracted on site at Cisco thru Acorn PD, Fremont, Ca.) San Jose, California, **Onsite** **5/13–11/13**

**Mechanical Engineer**

Worked on complex some high speed Cloud storage dense chassis, designed Sheetmetal and casted backplanes, line-cards and fabric modules, Included ejectors, guide rails, Molex and Tyco style power/signal pin guided high density conn., LED-Light pipes, EMI shielding, mechanical PCB interface & outlines, eCAD library created/verified, specified comp, via and trace keep outs and max comp height, and CTF dimensions, Assembly fixtures, worked with venders and over-seas Mfg. DFM.

**Selected accomplishments:**

* Designed and packaged high speed Cloud Networking Chassis Systems Unit, 16+ru.

**Lam Research** Fremont, California, **07/12–12/14/12 and presently re-hired from Onsite** **4/16 – 10/17**

**Mechanical Engineer-Designer**

Worked in a PVD environment assigned to create and detail complex machined and/or welded tool components,

Includes Chuck/Seal Plates, Vacuum Chambers, Main frame, and IP rated Sheet metal Chassis and dense packaging,

Created Gas panels from P&ID, use of extensive GD&T, with Creo 2.0 /Pro-e. & PDM link /Team Center.

**Selected accomplishments:**

* Designed and packaged a Local Power Box (LPB) system.
* Designed a multi station structural Frame for PVD chambers.

**Cisco Systems, bldg. 23** (contracted on site at Cisco thru Acorn PD, Fremont, Ca.) Milpitas, California, **Onsite** **10/11–04/12**

**Mechanical Engineer**

Worked on a Telepresent Display system TX9200, involved on the design Light Reflector Panels and free-standing wall assemblies, included design of Sheet metal Chassis, Alum extrusions, Plastic laminated facades, Retainer Spring, pin guides and MDF panels.

**Selected accomplishments:** Telepresent Display rear free standing reflector system design and assembly method.

**ENPHASE ENERGY**, (Start-up Co “50th emp.”) Petaluma, California, **Onsite** **08/09–08/11**

**SR Mechanical Engineer, (Full Time)**

Worked on the Packaging of the initial stage of the Electro-Mechanical Engineering/Development of Solar PV Module Micro Inverter plus engineering & support of exiting product line including, was responsible the Mechanical design and e-cad support for thermo concerns. The micro-Inverter enclosure, consisted of Alum Die casting, Machining, sheetmetal, Potting, covers & chassis plates, connectors and phosphorus bronze contacts, Injection molded plastics, insert molding, GD&T, Using Pro-e WF 5.0 windchill PDM, Arena, Bugzilla, created qualification Testing & Validation tooling & mechanical test plans & testing result matrix reports.

**Selected accomplishments:**

* Custom IP67 (IEC 60529), UL 1977 touch safe, UL 746 C, F1 rating SOLAR compliant connectors and spring contacts.
* PVAC (Photovoltaic AC module) Micro-Inverter to back of PV Module attachment system, & UL 1741 junction box.

**YAMAHA MOTOR CORPORATION**, Cypress, California, **Onsite** **03/08–03/09** (2nd time hired) and **08/04–05/06** (1st time hired).

**Mechanical Engineering/Development**

Worked on Design/Development of existing product performance Improvement & New Accessories, ATV/UTV equipment, Armored A-arm plated Skid plates, Nerf bars, Grab bars Baja Bumpers & Utility Racks.

**Selected accomplishments:**

* Perfected and established assurance methods to check incoming proto-types or “Reverse Eng” complex shapes.
* Designed components, Billeted Clutch/Pressure plates & Clutch Baskets.

**KULICKE & SOFFA (before acquisition formerly was ORTHODYNE ELECTRONICS)**, Irvine, California, **Onsite** **07/06–02/08**

**Mechanical Engineering Designer (Full Time)**

Manufacturer of Ultrasonic wire bonders (electro-mechanical robotic system) Performed complex electro-mechanical **Selected accomplishments:**

* Designed tooling to provide clamping forces to secure Lead frame’s strategic locations to be wire bonded.
* Provided & performed technical analysis for tooling and presenting solutions for design review.

**COMARCO WIRELESS TECHNOLIGIES**, Irvine, California, **Onsite** **11/01–06/04 (Full Time)**

**Sr. Mechanical lead Designer**

Working primarily on Mobile Power Products, mainly engineered & design of Smallest Universal Power Supply Systems, involved From Concept to High Volume Production Plastic Housing Package, Cell phones, PDA's & other personal devices.

**Selected accomplishments:**

* Developed Plastic PCB Ultra-sonic welded Housing assembly and 1 click “Snap together” assembly methods.
* Designed Cable Management & Storage Systems, Auto re-wind Retracting cables, Rotating PCB Spring contacts.

**APPLIED CONCEPTS INC.,** Plano, Texas, **Onsite** **12/98–4/01**

**Mechanical Product Engineer (Full time)**

Worked on Designs and Production of Dept. of Transportation (D.O.T.), Police Radar/ Lidar speed reducing related equipment also established and trained Manufacturing Dept for practical and timely method of assembly.

**Selected accomplishments:**

* Designed Large Led Digit Speed Radar equipped Displays signs in Water proof Enclosures.
* Designed intelligent robust all weather Speed Trailers with Stainless steel electronic housing Cabs.

**APPLIED MATERIALS CORP**, Santa Clara, California / Austin, Texas, **Onsite** **11/94–7/98 (Full time)**

**Designer III/Eng** (DCVD CES & ATD)

The primary function was to layout complex designs per engineering's minimal verbal input/request. Utilizing 3d solids/parametric CAD model capabilities from engineering concept till fully documented. For initial release, all projects involved semiconductor related design & layout projects consisted of 200 and 300mm technologies.

**Selected accomplishments:**

* Modified Existing Transfer/Process vacuum chambers modules wit robotic mechanisms, Valve & Pipe integrations.
* DCVD/etch gas panel enclosures and Chassis/ Palette Mount system, Included extensive use of vacuum gas piping
* Designed complex shaped vacuum gas lines assemblies’ w/VCR fittings & Valve config, pneumatic components.

**Education / Certified Technical Training**

* “Mechanical Design and Drafting Cert” Bay Valley Technical Institute, Santa Clara, Ca.
* "Pro-e Wildfire 2.0 Cert" by David R. Martin of PTC University/Tri Star, San Diego, Ca.
* "Inventor 8.0/9.0 -Advanced training Cert” KETIV-U, Fullerton, Ca.
* "Geometric Dimensioning and Tolerancing Cert" by James D. Meadows, of Institute for Engineering and Design.
* "HP solid designer Cert" Visionary Design Systems - Cupertino, CA
* “Siemens NX 12.0 Cert " Visionary Design Systems - San Jose, CA (in 2018)