EDUARDO VALAREZO JR.

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PROFESSIONAL SUMMARY

Senior Hardware Integration Engineer with 12+ years of experience in robotics, manufacturing operations, and electromechanical systems. Currently architecting cable harnessing systems for humanoid robotics at Meta. Proven track record leading cross-functional teams, scaling manufacturing operations, and delivering complex hardware products from prototype to production. Bilingual (English/Spanish) with experience working with global teams and APAC manufacturing partners.

EXPERIENCE

Cable Harnessing Architect - Humanoid Robotics `CURRENT`   *2023 - Present*

Meta | Redmond, WA

- Lead architecture and design of cable routing systems for next-generation humanoid robot platforms
- Design high-density cable harnesses for precision actuation systems with 40+ degrees of freedom
- Develop routing strategies optimizing for range of motion, serviceability, and electromagnetic compatibility
- Collaborate with mechanical, electrical, and firmware teams to ensure seamless system integration
- Establish cable harnessing standards and best practices for humanoid robotics division
- Work with contract manufacturers to scale harness production from prototype to pilot builds

Lead Hardware Integration Engineer   *August 2019 - 2023*

Meta (Facebook Reality Labs) | Redmond, WA

- Led Stage HWI managing multiple product iterations at POE, POC, and P build maturity levels
- Delivered hardware to XFN partners enabling research for critical systems across product portfolio
- Managed remote manufacturing and delivery with APAC contract manufacturers during pandemic
- Co-led Latin@Meta & Latin@RL LHHM 2021: Developed programming across NORAM, APAC, and EMEA

Manufacturing Operations Engineering Manager   *November 2018 - July 2019*

Amazon Prime Air | Seattle, WA

- Led team of 18 support and manufacturing engineers for low-to-mid volume electro-mechanical and cable harness assembly
- Incubated, matured, and deployed products from prototypes to mass production via internal and external vendors
- Architected and commissioned manufacturing floor to scale operations leveraging automation and lean methodology

Sr. Manufacturing Engineer   *April 2016 - November 2018*

Amazon Prime Air | Seattle, WA

- Supported all design teams including structures, propulsion, avionics, and vision systems
- Implemented serialization, part marking, technical status gates, PLM fidelity, and work order processes

- Worked closely with designers and manufacturers to meet aggressive timelines and key milestones

Design Verification Engineer II
June 2015 - April 2016

Amazon Go | Seattle, WA

- Designed test plans against product specifications for shelf products
- Prototyped, designed, built, and deployed COPA Cabana test fixtures to China CM and local facilities
- Designed electromechanical test fixture for image quality testing over temperature in thermal chamber

Support Engineer III
May 2014 - June 2015

Amazon Go | Seattle, WA

- Supported engineering groups (ME, EE, SDE, Embedded firmware, Reliability, Operations, Tech-ops)
- Board-level troubleshooting, rework, provisioning workflow, and CM personnel training
- Selected as technology SME for Virginia installation enabling thermal certification efforts

Engineering Technician
August 2012 - May 2014

Rain Bird | Azusa, CA

- Maintained and optimized automation machines using mechanical and electrical components
- Dedicated technician for machine vision systems (Keyence, Banner, Cognex)
- Allen Bradley PLC troubleshooting (PLC 5, 500, 5000) and HMI programming

EDUCATION & CERTIFICATIONS

- **B.S. Electronics and Computer Engineering Technology** - California State Polytechnic University, Pomona (2012)
- Lean Six Sigma Green Belt - UW Tacoma (2019)
- IPC J-STD-001, IPC-A-610, IPC/WHMA-A-620 Certified (2018)

TECHNICAL SKILLS

- **Robotics:** Cable harnessing, actuation systems, motor control, harness routing
- **Manufacturing:** NPI, DFM, lean methodology, process optimization
- **Hardware:** PCB design, board-level troubleshooting, electromechanical assembly

- **PLCs:** Allen Bradley (PLC 5, 500, 5000), Modicon, HMI programming
- **Machine Vision:** Keyence, Banner, Cognex
- **Software:** SolidWorks, Eagle, LabVIEW, MS Office, Multisim
- **Languages:** Fluent in English and Spanish
- **Leadership:** Team management (18+ reports), cross-functional collaboration, global operations