William F. Nuveen

San Francisco, CA • wnuveen3@gmail.com • linkedin.com/in/williamnuveen
williamnuveen.github.io/portfolio/

SUMMARY

Mechanical engineer with 6+ years of experience designing hardware for robotic systems in cell-therapy manufacturing, warehouse automation, and consumer robotics. Specialize in injection-molded and machined consumables and robot-facing interfaces built for mass manufacturability and reliable human and robotic operation.

PROFESSIONAL EXPERIENCE

Multiply Labs Inc. — San Francisco, CA

Senior Robotics Hardware Engineer - *Consumables R&D* — *May 2026 – Present*

- Lead consumables designer for robotic automation of the Rotea cell-therapy instrument; designed the cartridge, consumable, and hardware interface that let a robotic arm run the Rotea autonomously, end to end
- Led design of Multiply Labs' pharmaceutical-grade (GMP) bag cartridge through Alpha, Beta, and Gamma revisions, improving reliability, robotic pick-and-place success rate, and GMP manufacturability while reducing customer assembly time
- Redesigned a peristaltic pumping bag cartridge attachment, cutting per-use cost from $100 to an estimated $2.50 (~97%) while simplifying assembly and improving cell-pumping performance
- Support consumables and hardware for robotic cluster deployments and daily operation at 3 large cell-therapy customers
- Managed a summer mechanical engineering intern: defined project scopes and goals, tracked progress, and provided day-to-day mentorship and technical direction

Advanced Robotics Hardware Engineer - *Consumables R&D* — *Dec. 2024 – May 2026*

- Joined as the second hire on the consumables design team; designed injection-molded single-use and reusable pharmaceutical-grade consumables for robotic cell-therapy manufacturing
- Led Multiply Labs' largest customer pilot to date (6 cell-therapy batches/day, 20 hrs/day, for 12 continuous days), achieving a 100% batch success rate
    - Owned the pilot's full consumables and hardware stack (cartridge and consumable manufacturing, robot builds, cluster upgrades, and hardware testing), keeping the system production-ready for the full run
- Designed, fabricated, and tested calibration and leveling jigs used to bring up and calibrate 4 robotic clusters, enabling accurate pick-and-place across the fleet
- Helped develop, deploy, and operate Multiply Labs' first customer robotic cell-therapy manufacturing system, built for Legend Biotech

Ocado Technology (Formerly Kindred AI) — San Francisco, CA

Mechanical Engineer II - *Robotics Product Development* — *Sept. 2022 – Dec. 2024*

- Core mechanical contributor to Ocado's first AI/ML-driven robotic depalletizing system, from design through deployment at multiple European fulfillment centers
- Raised robotic pick-and-place accuracy from 75% to 98% by selecting and integrating depth/RGB cameras, increasing system throughput by 30%
- Co-designed and fabricated an electromechanical end-effector (sensors, actuators, pneumatics) that raised payload capacity to 80 lb and handled a wider range of items

- Performed load calculations and structural FEA to anchor a 1,250 lb robotic arm and pedestal to concrete, specifying anchors and adhesives that met all safety requirements
- Managed cross-functional installation and integration of the San Francisco proof-of-concept depalletizing test cell, which led to funding approval for the program

NEATO ROBOTICS San Jose, CA

Jr. Mechanical Engineer - *Product Design* *Aug. 2020 – Sept. 2022*

- Designed, prototyped, and tooled injection-molded parts for Neato's first commercial robotic vacuum, the Nexaro NR1500, now sold globally by Vorwerk
- Redesigned a robotic vacuum drivetrain, improving motor efficiency, reducing noise by 30%, and cutting production cost by $2 per unit
- Streamlined Neato's additive manufacturing operations, cutting design iteration time by 75% and saving $20,000 a year in vendor costs
- Developed and scaled high-volume plastic accessories (pet brush, fragrance dustbin filter), adding 7 SKUs to the product line
- Started and led Neato's emerging-technologies R&D program, developing dust-sensing technology that used accelerometer and gyroscope data to adjust suction automatically

EDUCATION & CERTIFICATIONS

MIAMI UNIVERSITY Oxford, OH

B.S. in Engineering, Major in Mechanical Engineering *2016 – 2020*

GD&T CERTIFICATION*, 2-B Quality (ASME Y14.5-2009)* Toronto, ON

TECHNICAL SKILLS

- **Design**: Onshape, SolidWorks, Creo, Injection-Molded Part Design, DFM&A, GD&T, Root Cause Analysis (RCA), First Article Inspection (FAI)
- **Prototyping & Manufacturing:** Additive Manufacturing, Machining (Milling), Injection Molding, Sheet Metal, Laser Cutting
- **Project Management:** Arena PLM, Confluence, Jira, BOMs, Vendor Management