

Jerica Rattana

BASc in Mechanical Engineering, University of Waterloo, 2022

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Experience

Release Engineer, Zoox – Foster City, CA November 2024 – Present

- Led and managed part release for all parts in 3DX for the software hardware-in-the-loop team, ensuring timely and accurate design and documentation.
- Established the team's engineering drawing standard, including defining tolerances and GD&T practices for outsourcing manufacturing.
- Executed mechanical design changes for tester updates by determining modifications, updating models in 3DX, creating deviation instructions, and coordinating build.
- Designed custom brackets and mounting solutions for components in server-rack hardware testers, optimizing for layout and serviceability.

Design Engineer, Lucid Motors – Newark, CA July 2023 – June 2024

- Led engineering design of accessory items by translating from studio design to manufacturing; focus on injection-molded TPE mats and storage accessories.
- Led regulatory vehicle labeling program for all trims and markets; focus on meeting ongoing production requirements while implementing systematic improvements to reduce cost and complexity.
- Restructured the labels program resulting in \$20k cost savings by creating dynamically printed labels that are printed lineside, reducing the number of pre-printed labels purchased from the supplier and held stock.
- Created and established quality control processes for labels by implementing tools such as scannable matrices and audits to ensure the correct label is installed for each vehicle on the line.

Design Release Engineer, Stellantis – Remote July 2022 – June 2023

- Drove validation and integration of the forward-facing camera into multiple vehicle platforms by managing supplier requirements from validation testing to manufacturing.
- Conducted analytical studies to investigate all aspects of camera integration into vehicles, such as packaging studies to test optimal camera mounting positions and ride height analysis to determine camera field of view.
- Organized and led meetings to root cause camera failures by investigating ECU software, camera hardware, wire harness and plant processes across multiple suppliers and technical teams.

Skills

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- **Hardware & embedded systems:** ESP32, Raspberry Pi, sensor integration (CO₂, temp, humidity, sound, vision).
 - **Mechanical design:** 3DX, NX, Solidworks, Fusion 360, GD&T, DFMEA, DFM.
 - **Rapid prototyping:** fixtures, enclosures, wire harnesses, LED systems, 3D printing, laser cutting.
 - **Test & validation:** thermocouples, NI DAQs, force gauges, load cell, environmental temp chambers, and Python.

Technical Personal Projects

Illumination Lite Rite March - June 2026

- Designed and built a multi-component interactive installation featuring Raspberry Pi-based computer vision (OpenCV) for peg-pattern validation, laser-cut plywood templates, surface transducer audio triggering, and custom participant-facing electronics. Full writeup [here](#).

Project lead & hardware engineer, Where is Every Body At?! Sept - Nov 2025

- Built and deployed a 13-node distributed sensor network across a live hotel, integrating custom-built ESP32 hardware (CO₂, temperature, sound), 3D printed enclosures, and real-time occupancy estimation under live networking constraints. Led a 5-person team end-to-end. Full writeup [here](#).