

Lex Roller

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Skills

Robotics: ROS 2, Nav2, NVIDIA Isaac ROS, SLAM/VSLAM, motion planning, teleoperation

Embedded & Systems: Python, C/C++, Linux, Raspberry Pi, Pico/AVR/ESP32, I2C, SPI, UART

Hardware: Robot bring-up, Feetech actuators, sensor integration, PCB design (KiCad), electronics test and diagnostics

Product & Fabrication: Git, FastAPI, Next.js, OpenSCAD, Fusion 360, Onshape, 3D printing, CNC machining

Experience

Founding Engineer

Jun 2026 – Present

Nori Robotics (YC S26) – San Francisco, CA

- Building and bringing up NORI L3, a 20-DOF bimanual mobile robot, across embedded systems, actuator and sensor integration, controls, safety, and operator tooling.
- Built core NORI L2 infrastructure spanning dual-arm, lift, and base control; teleoperation; calibration; camera bring-up; diagnostics; and production Raspberry Pi deployment.

Undergraduate Robotics Researcher

Sep 2025 – Jun 2026

Do Robotics Lab, Oregon State University – Corvallis, OR

- Built and characterized v2 of a bi-stable tape manipulator based on the pinched bistable tape architecture published at ICRA 2022.
- Designed benchtop experiments for repeatability, stiffness behavior, and extension performance across prototypes.

Robotics Intern, Hampton Lumber Mills – Willamina, OR

Summer 2025

- Designed and built a custom autonomous cleaning robot with a purpose-built chassis and dual-cyclone vacuum system using ROS 2 on Jetson Nano.
- Integrated NVBLOX, RealSense visual SLAM, Nav2, custom hardware drivers, coverage planning, and a mission-control interface.

Robotics Intern, Hampton Lumber Mills – Willamina, OR

Summer 2024

- Converted an industrial push sweeper into an autonomous mobile robot with ROS 2, SLAM, Nav2, custom brush-control electronics, and PS4 teleoperation.

Projects

HIRO (Humanoid & Intelligent Robotics Organization), Founder & President

hiro-osu.github.io

- Founded and lead OSU's humanoid robotics organization, setting the technical roadmap and running weekly design-and-build execution.
- Led projects spanning a GR00T 1.6/Jetson Thor manipulation demo, a Robstride-based humanoid prototype, and a 3D-printed cycloidal actuator.

cadfactory.ai

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- Built an AI CAD product with Next.js and FastAPI for generating, editing, previewing, and exporting parametric OpenSCAD models.

splitBot

github.com/AlexanderRoller/splitBot

- Built a Discord-native market monitoring tool for reverse splits with alerts, charts, arbitrage estimates, and stock-analysis utilities.

Education

Oregon State University

Expected Jun 2027

MS in Robotics, Accelerated Master's Program

Oregon State University

Awarded Jun 2026

BS in Electrical and Computer Engineering, Minor in Computer Science