Robert Vasquez Zavaleta

+34 722 344 001 vasquez.zavaleta.robert@gmail.com Location - Valencia, Spain

LinkedIn: rovasza **Site**: roboticarts.io **GitHub:** RoboticArts

PERSONAL STATEMENT

A senior robotics systems engineer with 6 years of experience in mobile robotics, specializing in production-grade robots using ROS/ROS2, with a strong background in electronics, and over 10 years building personal robots. Responsible for software production at Robotnik Automation collaborating with sales, hardware, supply chain, quality and support. Experienced in software development, customer service, industrial projects, systems integration, DevOps, software architecture, and management. Comprehensive experience across the entire robot lifecycle. Informal leadership to integrate human and technical challenges through coherence, resilience, collaboration, and continuous growth.

COMPETENCY SUMMARY

- ROS, ROS2, Gazebo, Linux
- C++, C, Python, Bash
- ros2_control, SLAM, nav2, moveit2
- LiDAR, IMU, RGBD sensors
- Git, Github Actions, Docker
- Teensy, STM32, CAN, PID, FOC
- SolidWorks, 3D Printing, Altium
- System-level thinking
- Technical leadership without formal authority
- Decision-making with limited resources
- Explaining and sharing technical understanding
- Process and workflow optimization
- Mentorship and coaching of junior engineers
- Adaptable, open-minded, and self-aware
- Proficient in working in English
- Human-centered perspective and improvement mindset

WORK EXPERIENCE

Robotnik Automation – Valencia, Spain

Senior Robotics Systems Engineer (11/2019 - Present)

Robotnik Automation designs and manufactures mobile robots for industrial automation and research.

- Leads a team of 3 engineers responsible for software deployment across all Robotnik production robots. Strong ownership of technical outcomes, including scoping, delegation, risk management, and cross-functional coordination. Applied Agile practices using Jira, Odoo, and GitHub Projects.
- Owned and maintained ROS1 and ROS2 production software, being comfortable with trade-offs and balancing innovation with product maturity to ensure reliability and scalability. Managed changes with Git submodules, GitHub pull requests, and validation processes.
- Integrated ROS2 production software in a modular and decoupled architecture using launch/config files and documented policies, enabling Docker deployment, enhanced scalability, and alignment of technology with market and business strategy.
- Unified the software architectures of Robotnik's ROS1 robots into a single product-line architecture. Designed a flexible launch and YAML configuration system to enable faster development, deployment, and maintenance.
- Engineered CI/CD pipelines for ROS1 and ROS2 production software, integrating Bash, Git, GitHub Actions, Docker, tests, a custom deployment framework, and documentation to enable faster software delivery. Committed to fostering a culture around safety, security, and continuous innovation.
- Ensure a high system reliability and performance for robotic operations by defining processes and checkpoints to validate hardware-software integration, detect recurring issues, streamline deployments, and reduce cross-departmental handoff delays.