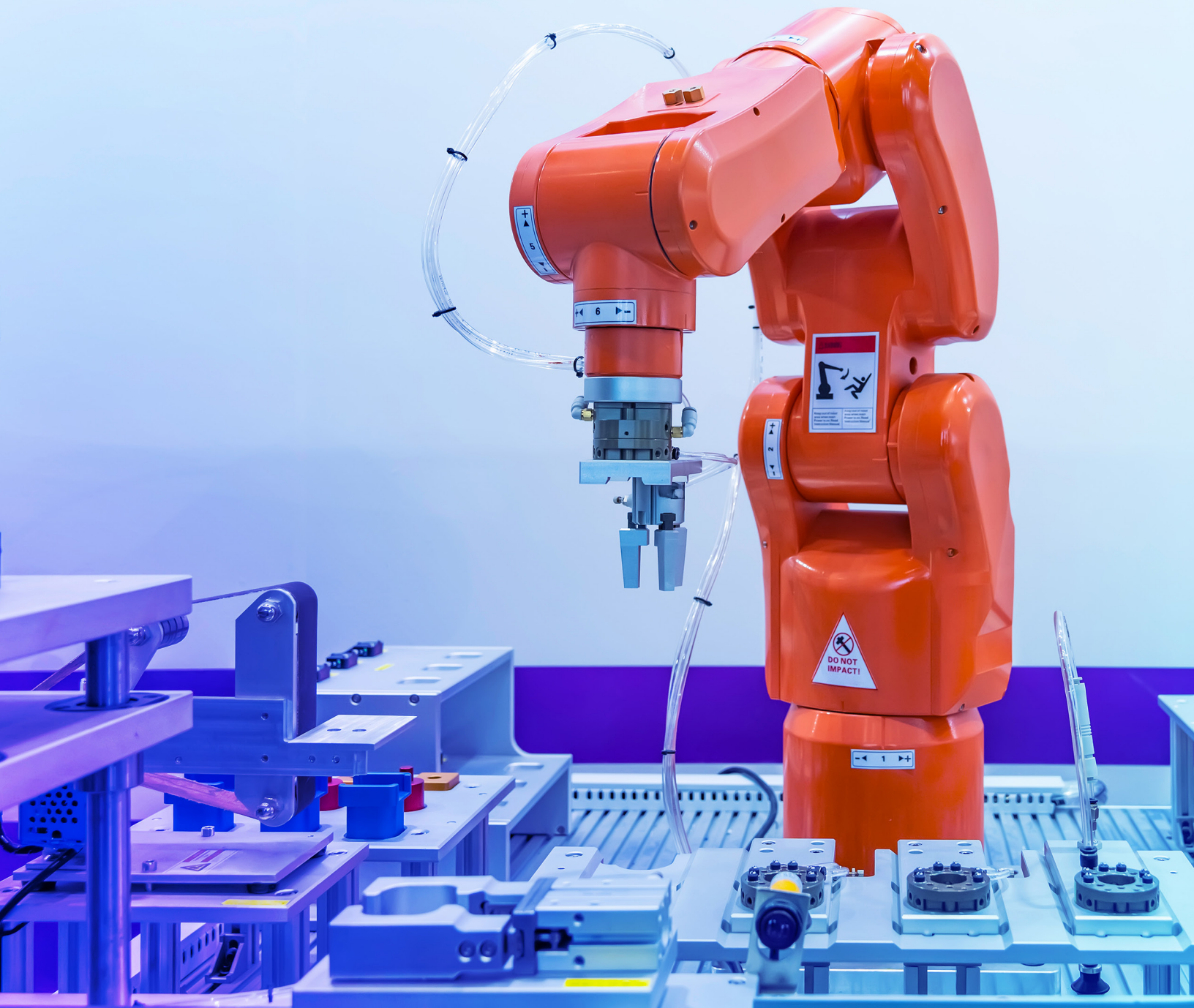


HCLTech | SGBI

RETAIL 5.0

POS testing automation

The future of POS test automation



Challenges in POS Testing



Extended regression timeline causing Delay in meeting release deadlines



Diverse hardware

Multiple hardware configurations

POS systems interact with various devices like barcode scanners, receipt printers, and cash drawers. Testing across all these configurations can be complex and time-consuming.



Diverse customer interactions

Simulating real-world scenarios

POS systems handle a wide range of customer interactions and unexpected situations. Manually testing these edge cases can be difficult and time-consuming.



Limited automation support

Limited automation tools

Popular test automation frameworks might not fully support specific functions or integrations within various pos systems.

Robot aided testing as a service

RAAS (Robot-Aided Testing as a Service) provides automated testing solutions on a subscription basis, eliminating the need for large upfront investments. This flexible service model allows businesses to access advanced testing technologies without the burden of ownership, ensuring cost efficiency and scalability.



Natural language instructions

Describe your test scenarios in plain English

Use voice commands or simply type your instructions



AI-powered test script generation

Our intelligent QuacoStudio Ai platform takes your natural language instructions and generates comprehensive test scripts



Robotic test execution

Describe your test scenarios in plain English.

Advanced robots equipped with specialized accessories execute the test scripts on your device under test (DUT)



In-depth analysis & reports

Advanced robots equipped with specialized accessories execute the test scripts on your device under test (DUT)



Seamless CI/CD integration

Identified bugs are automatically pushed into your existing development pipeline (CI/CD) for faster resolution



Ship with confidence

With comprehensive testing and early bug detection, you can release your products and software with the assurance of exceptional quality and a flawless user experience.

Quaco Pro-D

Revolutionizing point of sale testing

Single finger gestures



Tap



Swipe



Hold



Flick



Hover



Press



Drag



Multi Tap



Rotate



Sign

Multi-finger gestures



Tap



Tap



Tap



Tap



Tap

Multi-finger gestures



Haptic



Knob & Switches



Voice Interaction

Quaco Pro-D is a powerful test automation platform that simplifies and enhances Human-Machine Interface (HMI) testing. It mimics real human interactions, such as touch gestures and button presses, to accurately test any device's hardware and software components. It utilizes an advanced AI-powered vision system to validate each action the robotic arm performs. This real-time validation ensures every step of the testing process is executed flawlessly and verifies the results of those actions.

Ideal for black-box testing at any stage of development, Quaco Pro-D helps increase test coverage while reducing time-to-market. Its modular architecture allows easy scalability for future testing needs, and its non-intrusive design ensures smooth regression cycles with minimal effort. Whether used as a standalone system or integrated into your current infrastructure, Quaco Pro-D enhances testing efficiency and reliability across all devices



SGBI Quaco Studio AI

Streamlining your testing process

Quaco Studio AI revolutionizes the software testing landscape by enabling rapid test case generation from natural language or voice commands, significantly enhancing efficiency and accuracy. With advanced AI and machine learning, Quaco Pro-D automatically generates test cases, eliminating the need for coding and ensuring seamless integration with your existing test automation frameworks through APIs



Natural language test case generation

Create detailed test cases quickly from voice or text commands, streamlining the testing process.



Codeless test case generation

Easily design complex test scenarios without any coding, empowering users of all skill levels to contribute to testing efforts.



CI/CD Integration

Seamlessly incorporate automated testing into your existing pipelines for faster feedback and reduced time-to-market.



Customizable reports

Access detailed performance metrics, identify bottlenecks, and receive actionable recommendations for optimization

Quaco Pro-D for POS Testing

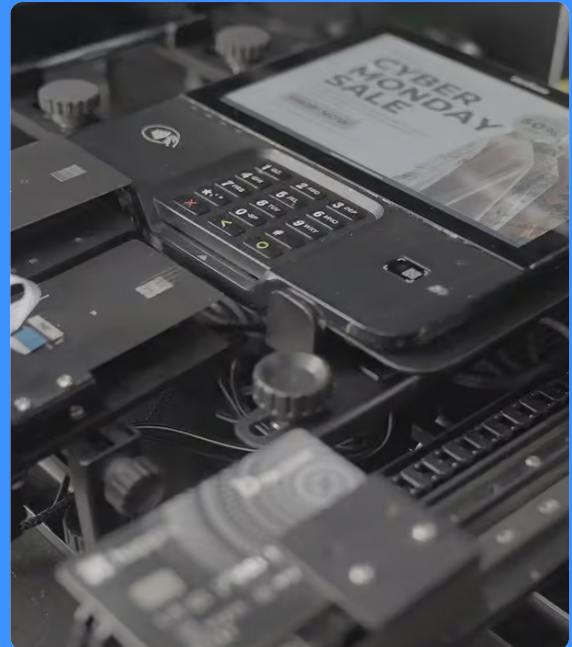
How it works

Quaco Studio AI operates as a next-generation test bench, following industry-standard practices while replicating human actions for more accurate and efficient testing. Using advanced AI and machine learning, it enables the automatic generation of test cases from natural language or voice commands, eliminating the need for manual coding. The system seamlessly integrates with existing test automation frameworks via APIs, providing a smooth and scalable solution.

Additionally, Quaco Studio allows for remote usability, enabling users to access and monitor the testing process from anywhere, enhancing flexibility and collaboration for teams across the globe.



The Quaco Pro-D, guided by AI, thoroughly tests all system functionalities including communication with other devices to minimize undiscovered issues.



Quaco Pro-D and Quaco Studio AI comprehensively test user interactions like touch-screens, voice commands, and physical buttons for responsive functionality.

It also automates testing within your development process for streamlined workflows and early bug detection.

Key user cases

Checkout process

Testing Every step of the checkout

- Sales Person/Manager Login
- Product Scanning Accuracy
- Manual On-Screen Entry
- Cart Management & Modifications

Payment validation

Testing every payment scenario

- Multiple Card Types
- Simulated Card Interactions
- QR Code & Mobile Wallet
- Error Handling & Security
- Partial Payment Scenarios
- Receipt Printing & Validation

Discounts & promotions

Ensuring accurate discount scenario

- Coupon Scanning & Entry
- Multiple Discount Integration
- Targeted & Personalized Offers
- Price Override



The test types

We support a wide variety of standard test types as well as industry-specific tailor-made test cases like Margin edged error detection, Gloves detection & Robustness against water drop, etc.

- UI/UX regression testing
- Functionality testing
- Pure black box testing
- Hardware in Loop testing
- Hardware dependency testing
- Performance testing
- Application stability Testing
- Touch accuracy, resolution, jitter
- Latency testing
- End-of-the-line testing
- Monkey (random use) testing
- System testing
- Sample testing of production batches
- Endurance (breakpoint) testing

Tailored plans

Designed for all teams

Best for QA engineers & small engineering teams

RAAS

Robot as a Service

The ideal choice for small teams looking for flexible, subscription-based access to advanced testing robots.

- Quaco Robots
- Quaco Studio AI
- 10hr Online Engineering Support
- Pay per Month

Best for QA engineering teams that have a large testing facility with continuous testing

IAAS

Infrastructure as a Service

The ideal choice for small teams looking for flexible, subscription-based access to advanced testing robots.

- Quaco Robots
- Quaco Studio AI
- 50hr Online Engineering Support
- Pay per Month

Best for engineering teams that would like to outsource testing

TAAS

Testing as a Service

A fully managed solution for teams outsourcing their testing needs, offering tai-lored planning, execution, and dedicated support.

- Quaco Robots
- Quaco Studio AI
- 10hr Online Engineering Support
- Pay per Month



Future scope

Quaco testing solution is continuously evolving to enhance testing capabilities, focusing on reducing dependency on manual labor and enabling smarter, more efficient workflows. Advanced features like prediction-based test prioritization and bug prediction allow teams to focus on high-impact areas and optimize testing efforts.

The platform is also designed for scalability, ensuring it can grow with your business needs, handling complex test environments and increasing data volumes seamlessly. Its scalable architecture eliminates the need to rework existing scripts, enabling efficient testing across multiple devices simultaneously. As the industry advances, Quaco testing solutions will continue to drive innovation, delivering even more automation and intelligence to the testing process.



HCLTech | Supercharging Progress™

HCLTech is a global technology company, home to more than 218,000 people across 59 countries, delivering industry-leading capabilities centered around digital, engineering, cloud and AI, powered by a broad portfolio of technology services and products. We work with clients across all major verticals, providing industry solutions for Financial Services, Manufacturing, Life Sciences and Healthcare, Technology and Services, Telecom and Media, Retail and CPG, and Public Services. Consolidated revenues as of 12 months ending September 2024 totaled \$13.7 billion. To learn how we can supercharge progress for you, visit hcltech.com.

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