

INFINITEQ

Leading the future of Software Quality



WHITE PAPER

ROBOT AIDED TESTING SOLUTION

- iRobo

What is it?

A solution that tests the software of any touch screen devices automatically.

How does it work?

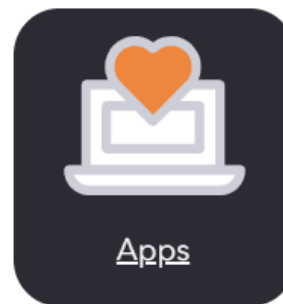
- ✓ Imitates the end user by utilizing advanced Machine Vision algorithms for visual verifications and Robotics for performing gestures.
- ✓ Tests devices as they are without attaching any cables or installing additional software inside them allowing authentic test approach.



WHAT KIND OF DEVICES IT IS TARGETED FOR?

Any devices or systems having a display or HMI operated with human touch or physical buttons.

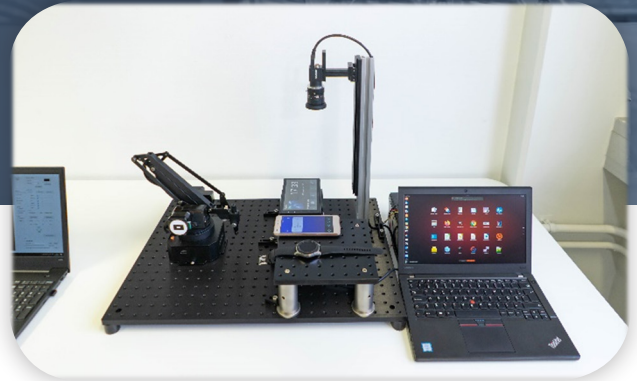
For example: Car Infotainment, Mobile Devices, Healthcare devices, IoT devices, Smart watches, Printers, Elevator panels, and any devices that have display, buttons, knobs etc.



What test areas are covered?

Solution offers a versatile set of capabilities that span a wide spectrum of testing needs. It can be effectively employed for a range of testing scenarios, including:

- Functional testing
- Non-functional testing
- Performance testing and measurements (Animation and Response times)
- Power measurements
- Connectivity



KEY BENEFITS



HUMAN LIKE GESTURES

Test devices similar to an end user without needing to install any software inside devices being tested.



COST SAVINGS

Utilizing automated robot aided testing for quality assurance will decrease the need of manual testing saving significantly costs in project life cycle



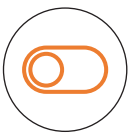
IMPROVES PRODUCT QUALITY

Extremely prone to finding software defects in the early phase of the software project improving product quality and customer satisfaction as well as decreasing consumer complaints



MAXIMIZE TEST COVERAGE

Maximize the breadth and depth of testing coverage to locate issues before device are shipped to customers. Rapidly test more devices and more product functions to ensure optimum performance.



PRESS HARD BUTTONS

Hard buttons such as Power, Volume buttons etc. can be pressed.



FIND BUGS AND CRASHES QUICKLY

Our solution activates the actual hardware components of the device under test, such that memory leaks and crashes gets detected quickly already during earlier phase of testing.



EASY TO SCALE

Solution is scalable to rapid changes in workloads and user demands. The architecture makes it easier to deploy system quickly thus handling the demands significantly faster.



LOW MAINTENANCE

Solution enables changes to test scripts for new areas, test builds when needed, thus has low maintenance needs.



TEST 24/7

Test without stop and interruption. Can operate remotely 24/7 from any location.



REPETITIVE AND LONG-PERIOD TESTING

Can test humanlike touch screen and system operations repeatedly thousands of times for days ensuring the system reliability.

Is it possible to integrate the solution to an existing Cloud and DevOps system?

Yes, the solution can be fully integrated to any existing CI/CD and DevOps system of your choice.

How about on-premises setup?

Yes, fully on-premise and standalone solution are provided, ensuring that the testing environment is self-contained and free from external dependencies.

How much time would it require to start testing using the solution?

Testing can be started within an hour after installing a setup environment. Solution offers a complete package, including hardware, software and ready API written in Python language. Also sample tests using RobotFramework and the usage of API keywords are provided for a smooth start.

WHAT OTHER FEATURES ARE SUPPORTED?

- Fast and reliable Machine Vision and OCR Verification
- Voice commands and Sound Analysis
- Automatic Reaction and Animation time (KPI measurements)
- CAN Bus API (CAN simulation and testing for several interfaces and tools including CANoe, CANalyzer etc.)
- Automatic Test Sequence Generation Tool
- Detailed Test reports with Screenshots and Videos
- NFC (Near Field Communication)



Performance Measurements

Automatic Reaction & Animation Time in milliseconds



Voice Control

Maps & Navigation



CI Integration



USB



Machine Vision



WI-FI



OCR



CAN Signaling

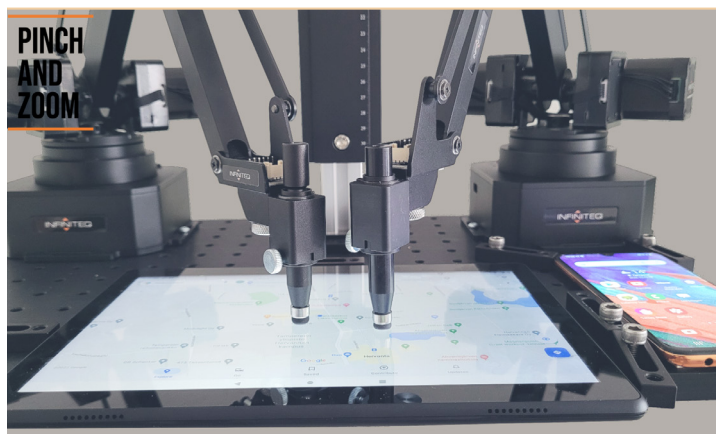
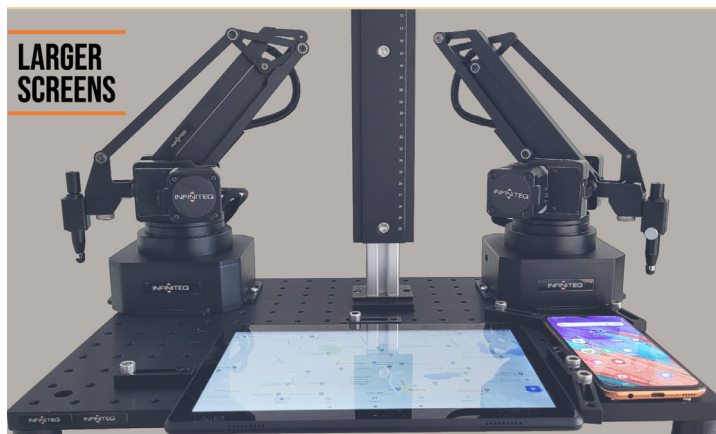
Compliant with various CAN interfaces



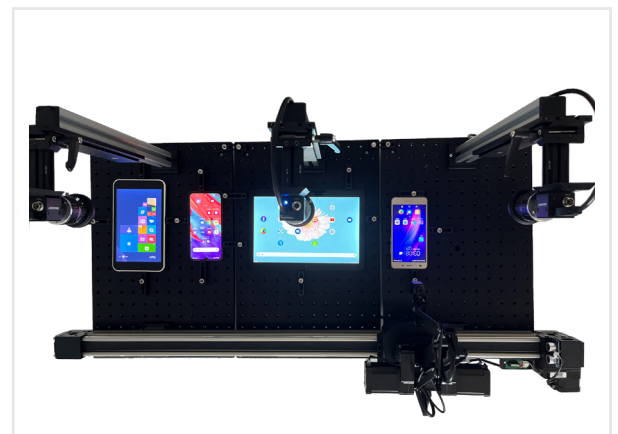
OUR PRODUCTS



iRobo - Standard Setup



iRobo - Dual Arm Tester
(Including Maps and Navigation testing)



iRobo - Testing Rig
(Test Farm and large devices)



HOW TO GET STARTED AND WHERE TO CONTACT?

Infiniteq support team can be contacted at support@infiniteqsystems.com for any further information, or product related inquiries.

Our team will contact you back with answers and assist with the next steps to ensure you have all the necessary information.



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