



e-Robot

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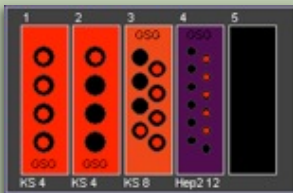
ELISA AND IFA AUTOMATION

*the best Walk-Away System
for ELISA and IFA assays*

THE REFERENCE POINT OF ELISA AND IFA AUTOMATION

e-Robot is the best robotic workstation for the complete automation of the ELISA and IFA assays on standard microtiter plates and glass slides.

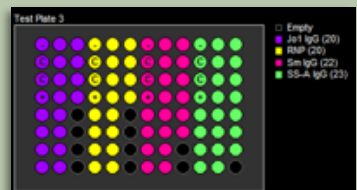
Based on the Sias Xantus platform, is a successful example of GSG RobotiX experience to develop customized solutions for **OEM Application**.



e-Robot has been developed as **Open System**, able to be configured for almost every ELISA and IFA assays.

Furthermore the system can run simultaneously different assays from different reagents supplier, whenever possible in the same support.

Innovative solutions make this system powerful and fast in a relative small size footprint (112 cm wide).





COMPLETE AUTOMATION

e-Robot is a Walk-Away Analyzer for **ELISA** protocols, from pipetting through incubation, washing, reading and results printout.

Featuring semi-automated bar code reading of samples, plates and reagents,

Time	Plate	Step	Method
00.00.00	1	Distribute	Tetano IgG
00.00.56	1	Incubation	Tetano IgG
00.01.01	2	Distribute	ANCA 6
00.02.26	2	Incubate	ANCA 6
00.32.31	2	Wash	ANCA 6

Method	Barcode	Run	Restart	Clear list	Import	Results	Read	Service	Return...				
Tube	BarCode	Name	ALCA	IGG	ANA	Jo1	SCL	Y0	SM	SM	Rep	SSA	SSA
0001	0524634	DM001											
0002	8634534	DM002											
0003	6454456	DM003											
0004	8645756	DM004											
0005	7567756	DM005											
0006	7578678	DM006											
0007	8086528	DM007											
0008	7856788	DM008											
0009	6786788	DM009											

comprehensive software requires a very **minimal interaction**.

IFA assays are **entirely processed** but read with an external microscope.

SAFE

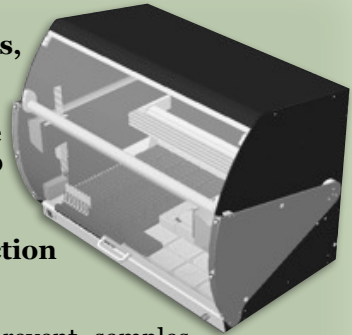
Barcode identification for samples, reagents, plates.

Active Safety Shield pauses the system when open. Optional **Top Cover** available.

Liquid, bubbles and clot detection independent for each probe.

Safe **tips decontamination** to prevent samples and reagents carry-over (washable tips).

Disposable tips available as option on customized solutions.



RELIABLE

e-Robot is the most reliable solution in the automation of autoimmunity and infection disease tests.

Maintenance is extremely **minimal** and the **costs** are the **lowest** for a liquid handling system (no syringes to be replaced).



FAST AND VERSATILE

ELISA and IFA test can be executed in the same run, optimizing the laboratory working hours.

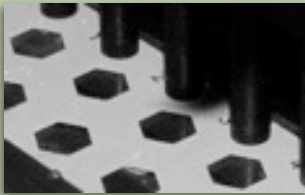
e-Robot is available with up to 4 pipetting channels (washable tips) plus a robotic handler arm for plate transportation.

Tips are fully **independent** on Y and Z axis movement.

Up to **4 plates** and **25 slides** can be simultaneously executed in the same run.

Up to **30 slides** for only IFA assays.

Up to **6 plates** for only ELISA assays.



Smart Slide

Wash extremely flexible and fully customizable.

The IFA slides are submerged during the wash step for an effective and gentle action on the substrate, efficiently washing **up to 5 slides in less than 6 minutes**.

Patient	T		
Tube BarCode Name	ANCA 6	Hep2 6	Tetano IgG
0001 IDM001 IDM001			
0002 IDM002 IDM002			
0003 IDM003 IDM003			
0004 IDM004 IDM004			

e-Robot The is extremely **flexible**, combining **screening and titration** of IFA assays.



User Name

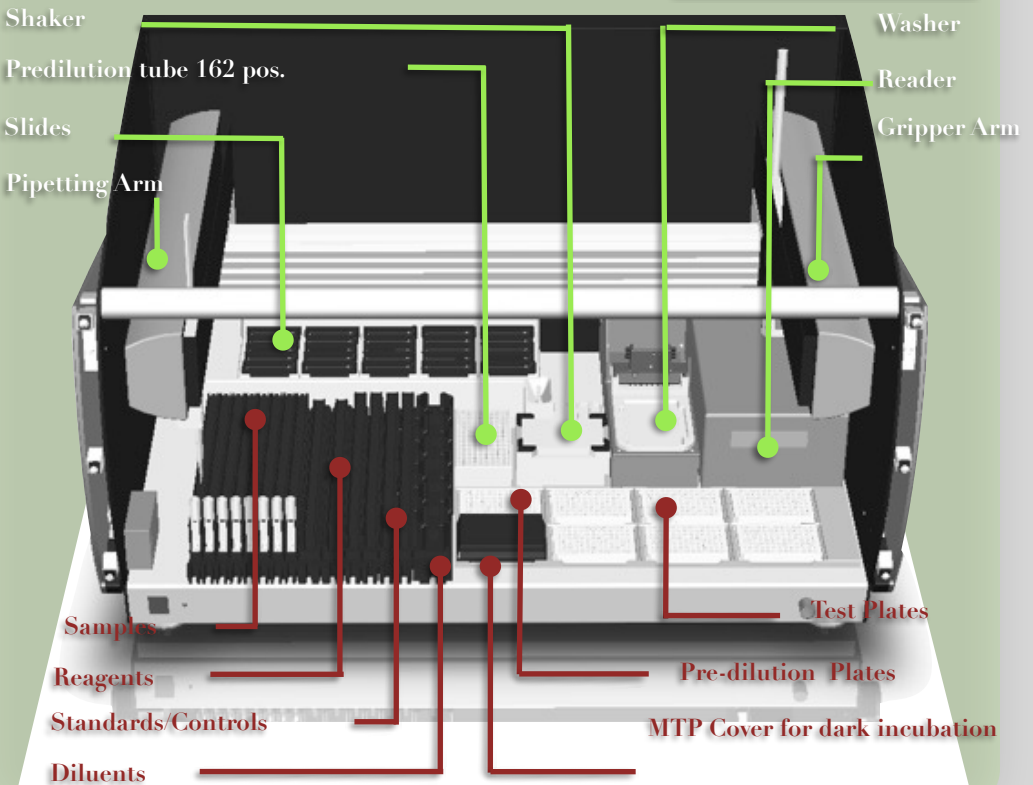
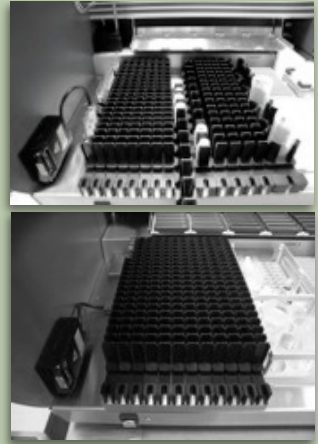
Role

The **e-Robot** supports different **user profiles**, setting up different level of features for different figures in the lab.

OPEN AND FLEXIBLE

The **e-Robot** accommodates in a very flexible way **160 sample tubes**, 64 standard-control vials, 6 diluent and 20 reagent containers on modular racks for a large number of test panel which share the same plate. Universal racks host different size of tubes, vials and original containers by adapters.

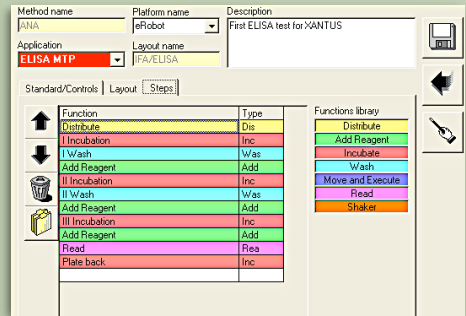
Alternatively the system can host **240 sample tubes**, 49 standard-control vials, 9 diluent and 12 reagent containers, with a different layout.



USER FRIENDLY

e-Robot user-friendly application software has been designed to make the **user interaction** easier.

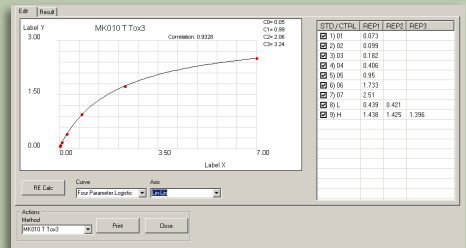
Application-Oriented programming interface simplifies the test method implementation, instrument preparation and assay execution follow-up.



RESULTS

e-Robot software has sophisticated tools for ELISA qualitative and quantitative data reduction, with **enhanced curve management**.

A complete **IFA Run Report** is available for tracking patient position on the slides, helping the operator when reading slides with the microscope.



IMPORT - EXPORT

e-Robot software further offers **bi-directional** connection to Host PC (LIS) by *file transfer* in **ASCII** or **XML** format file for downloading *Worklists* and uploading *Results*.

A *host-query* interface using **HL7** communication format is available as **optional** (**HL7 Manager** application program).



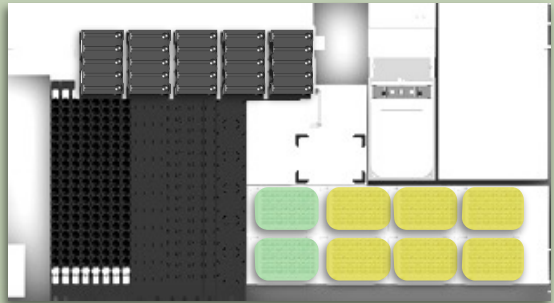
LAYOUT EXAMPLES

option A - ELISA - IFA

2 Predilution Plates

6 ELISA Plates

25 IFA Slides

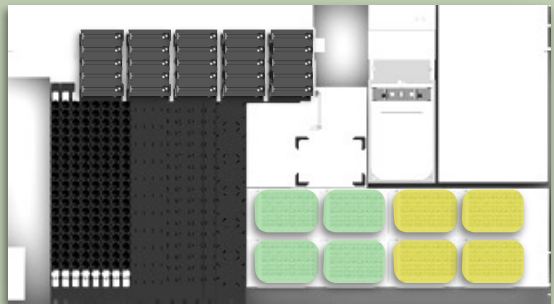


option B - ELISA - IFA

4 Predilution Plates

4 ELISA Plates

25 IFA Slides

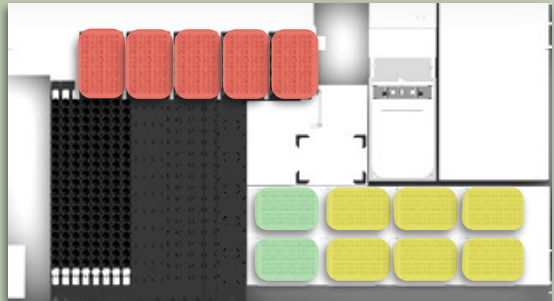


option C - ELISA

2 Predilution Plates

6 ELISA Plates

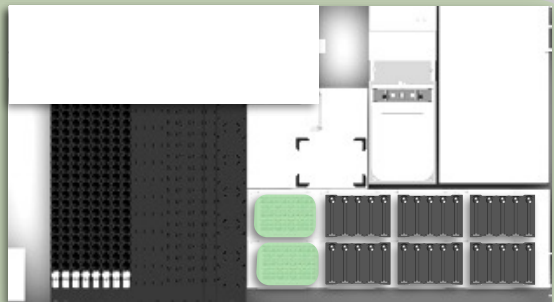
5 Positions 37°C Incubator



option D - IFA

2 Predilution Plates

30 IFA Slides



LAYOUT EXAMPLES

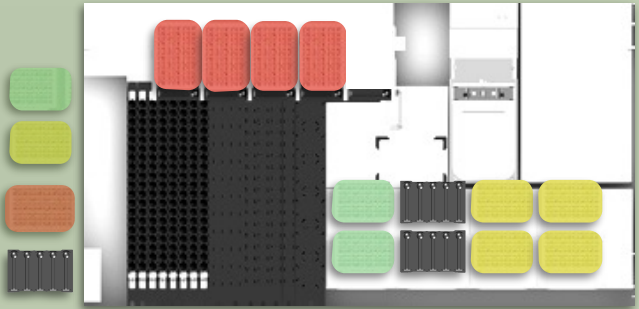
option E - ELISA-IFA

2 Predilution Plates

4 ELISA Plates

4 Positions 37°C Incubator

10 IFA Slides



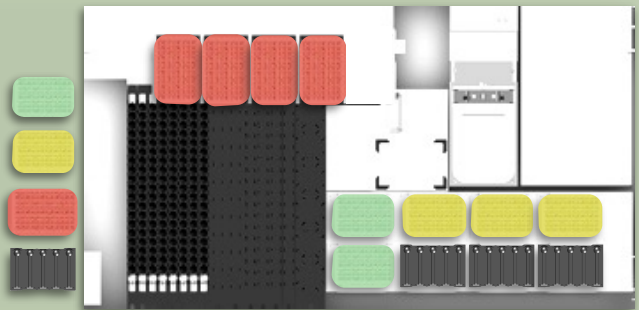
option F - ELISA-IFA

2 Predilution Plates

3 ELISA Plates

4 Positions 37°C Incubator

15 IFA Slides



... AND ANY OTHER CUSTOM SOLUTION
ACCORDING TO YOUR SPECIFICATIONS!

NO LIMITS

No limitation in the software to the maximum number of parameters which can be executed in the same run.

Up to 12 test per each plate.

Up to 5 different test/slides per each slide tray.

Special covers, available as options, allow the incubation of slides and plate at ambient temperature in **humid conditions**.



BAR CODE	Semi-Automatic system for Bar Code identification. Most popular Bar Code can be read. Bar Code reader for sample tubes and reagent containers. Max number of digits: 20.	
SAMPLES	160 or 240 samples tubes position (primary tubes) in linear racks (ResaTrax) with 20 tubes each. Tubes size between 10 to 16 mm OD.	
PREDILUTION	Predilutions in 162 microtubes and serial dilution in microtitre plates, depending on the Layout.	
TIPS	Up to 4 Washable Tips. Disposable tips available as option. Tips are fully independent on Y and Z axis. Variable Tips Spacing from 9 to 350 mm.	
LIQUID DETECTOR	Capacitance, independent detector for each tip. Liquid, bubble and clot detection.	
CARRY-OVER	Up to 10-6 depending on the washing cycles and the reagents characteristics.	
LIQUID DISPLACEMENT	High precision micro-anular gear pump for precise and accurate liquid handling.	
VOLUMES	Minimum sample/reagent volume 5ul. Maximum sample/reagent volume 1ml.	
SHAKER	Plates and Slides Shaker with different shaking mode (orbital, linear, etc.).	
PLATE READER	8 channels photometer for single, dual or multi wavelength measurement. Range between 400 and 800 nm. 4 standard filters up gradable to 6. Standard wavelength 620 nm, 492nm, 450nm, 405 nm (other values available on request).	
HEATED INCUBATOR	4 or 5 positions incubator (optional) Controlled temperature from 5 C° above Room Temperature to 49°C. Precision at 37°C +/- 0.5°C	
WASHER	8 channels with 4 software selectable buffer lines. For MTP and Slides.	
PC REQUIREMENTS	Not recommended Intel Atom and Celeron processor. Not recommended NetBook and its processor. Display Resolution 1280x1024. Software is fully compatible with Microsoft Windows XP/Seven operating system.	
INTERFACE to PC	CAN Bus on USB 2.0 port	
OPERATING CONDITIONS	Temperature: 15°C to 30°C/60°F to 85°F Relative humidity: 10 – 85% at 30°C/85°F or below.	
WEIGHTS	Weight approx. 150 Kg, depending on the configuration	
DIMENSIONS mm	Width 1120, Depth 850 ,Height 850.	NOTE: PC not included
CE mark	Instrument bears CE mark	



GSG Robotix is an Italian company with years of experience in the field of laboratory automation.

Where procedures and analytical methods need to be automated, GSG Robotix is able to respond with a turnkey solution, skillfully combining expertise with hardware and software appropriately chosen and ad-hoc developed.

In addition to development and fine tuning of new procedures GSG Robotix has got solutions ready for use in the diagnostic field.

The application areas range from the preparation of slides for IFA methods to the complete automation for ELISA, and their simultaneous execution.

From the interpretation of agglutination reactions to full automation in blood grouping tests, in microplate and Gel Card.

For further information contact info@gsgrobotix.it



GSG RobotiX è un' azienda italiana con anni di esperienza nel settore dell'automazione da laboratorio.

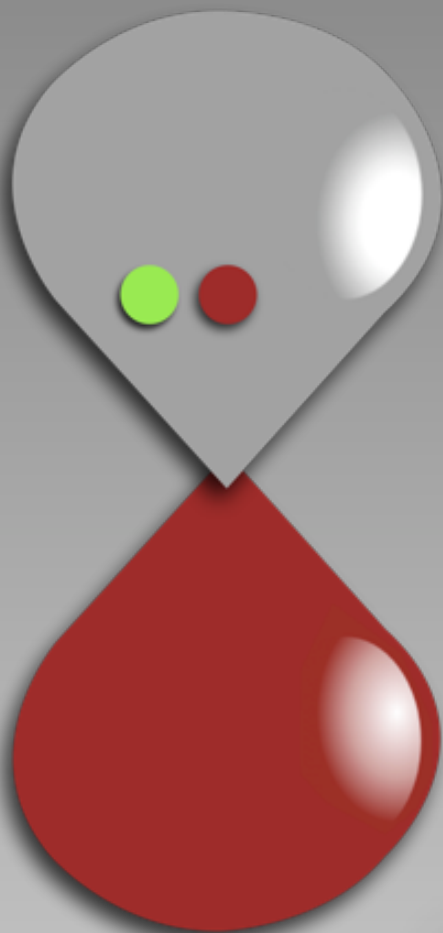
Laddove vi siano procedure e metodi analitici da automatizzare, GSG RobotiX è in grado di rispondere con soluzioni chiavi in mano, combinando sapientemente know-how con hardware e software opportunamente scelti e sviluppati ad-hoc.

Oltre allo sviluppo e alla messa a punto di nuove procedure GSG RobotiX dispone di soluzioni pronte all'uso in campo diagnostico.

I campi applicativi spaziano dalla preparazione dei vetrini per metodiche IFA alla completa automazione per metodiche ELISA, nonché alla loro esecuzione simultanea.

Dalla interpretazione di reazioni di agglutinazione alla completa automazione nella determinazione gruppi sanguigni, su micropiastra e Gel Card.

Per maggiori informazioni contattare info@gsgrobotix.it



A NEW EXPERIENCE
IN LAB AUTOMATION

GSG ROBOTIX SRL
VIA GIACOMO MATTEOTTI 66
20092 CINISELLO BALSAMO (MI)
- ITALY
INFO@GSGROBOTIX.IT
WWW.GSGROBOTIX.IT
TEL: +39 026128842

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