



**Tecan liquid handler**



**FreedomEVO Introduction**

# Basic Instrument



## Tecan automation: Freedom EVO® series

- One instrument platform – 4 sizes
- Full scalability and flexibility
- Numerous off the shelf modules

EVO200



EVO150



EVO100

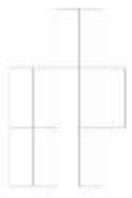


EVO75

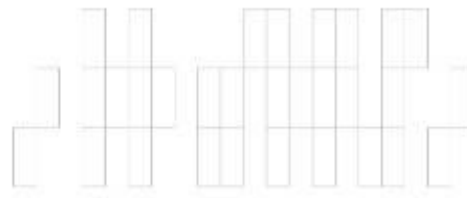


System size and capacity

System performance and flexibility



## Channel option



➤ **Serial Dilution**

➤ **Single Pipette**

- Sample dispense

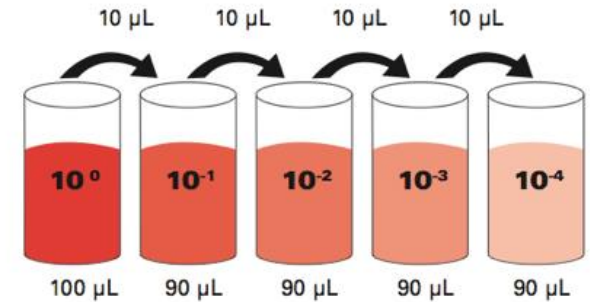
➤ **Multi Pipette**

- Reagent dispense

➤ **Mix, Hold**

➤ **Liquid Detection**

- Reagent, Sample Volume Calculation



# Channel option



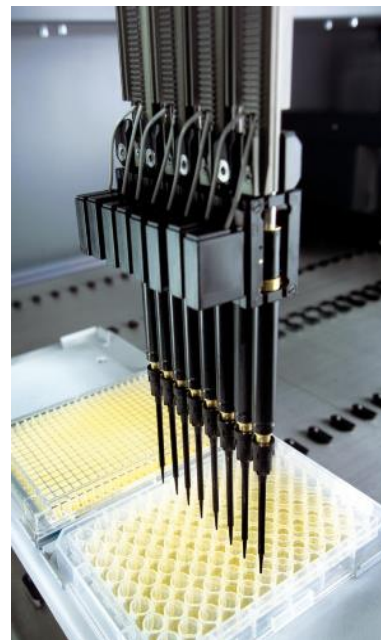
Freedom EVO100-200  
Liquid handling arm channel options



**2-channels**



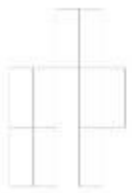
**4-channels**



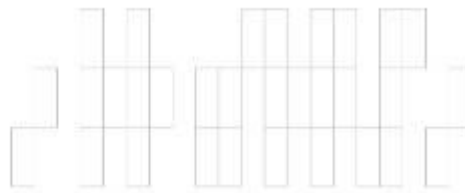
**8-channels**



**16-channels**



## Channel option



Variable Y axis and independent Z axis



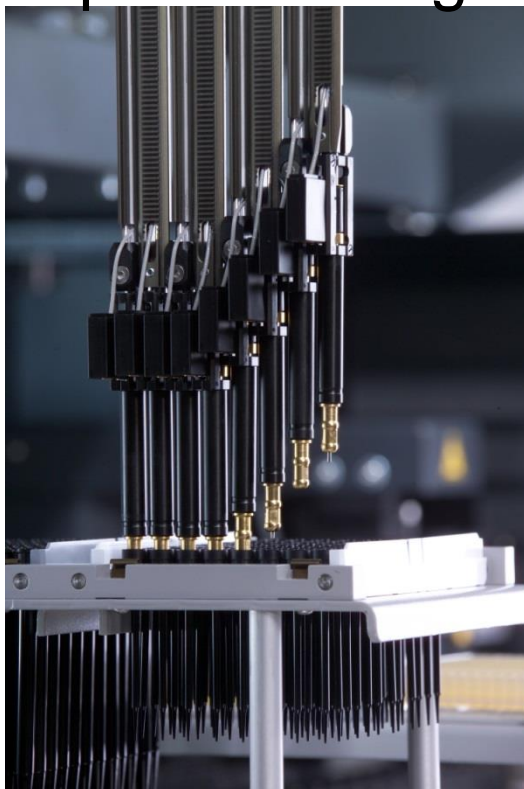


# Tip option

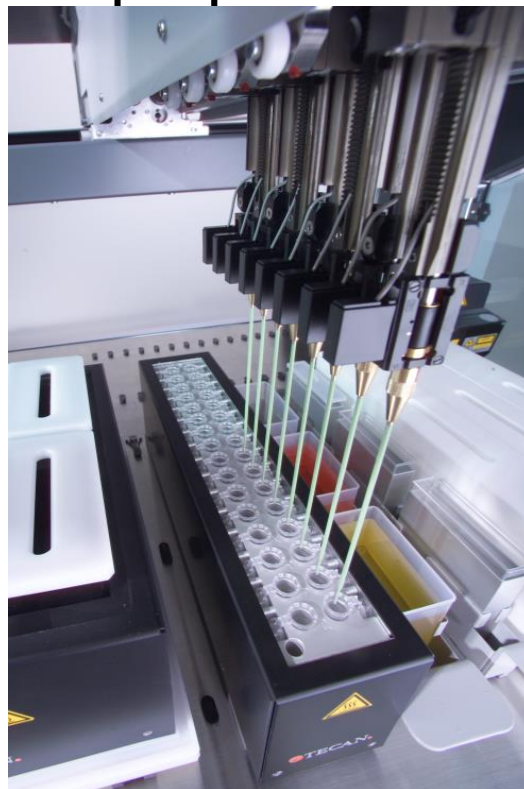


Freedom EVO100-200

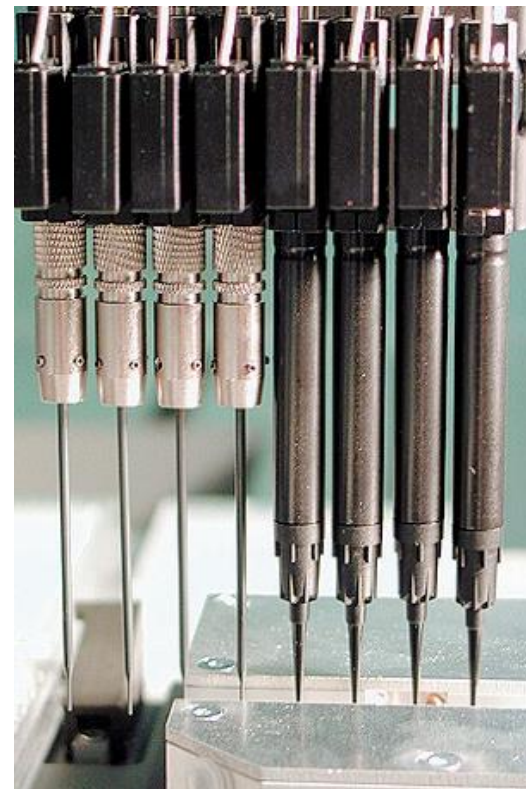
Liquid handling arm tip options



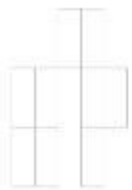
**Disposable tips**



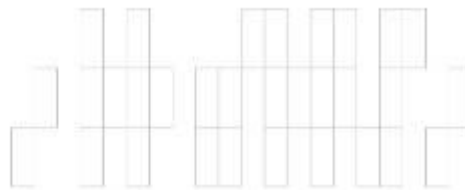
**Fixed washable tips**



**Fixed washable tips  
and disposable tips**



## Tip option



Choice of disposable tip sizes



Different sizes



10 µL



50 µL



200 µL

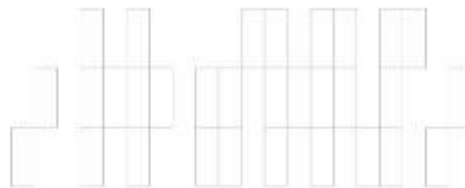


1000 µL

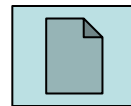
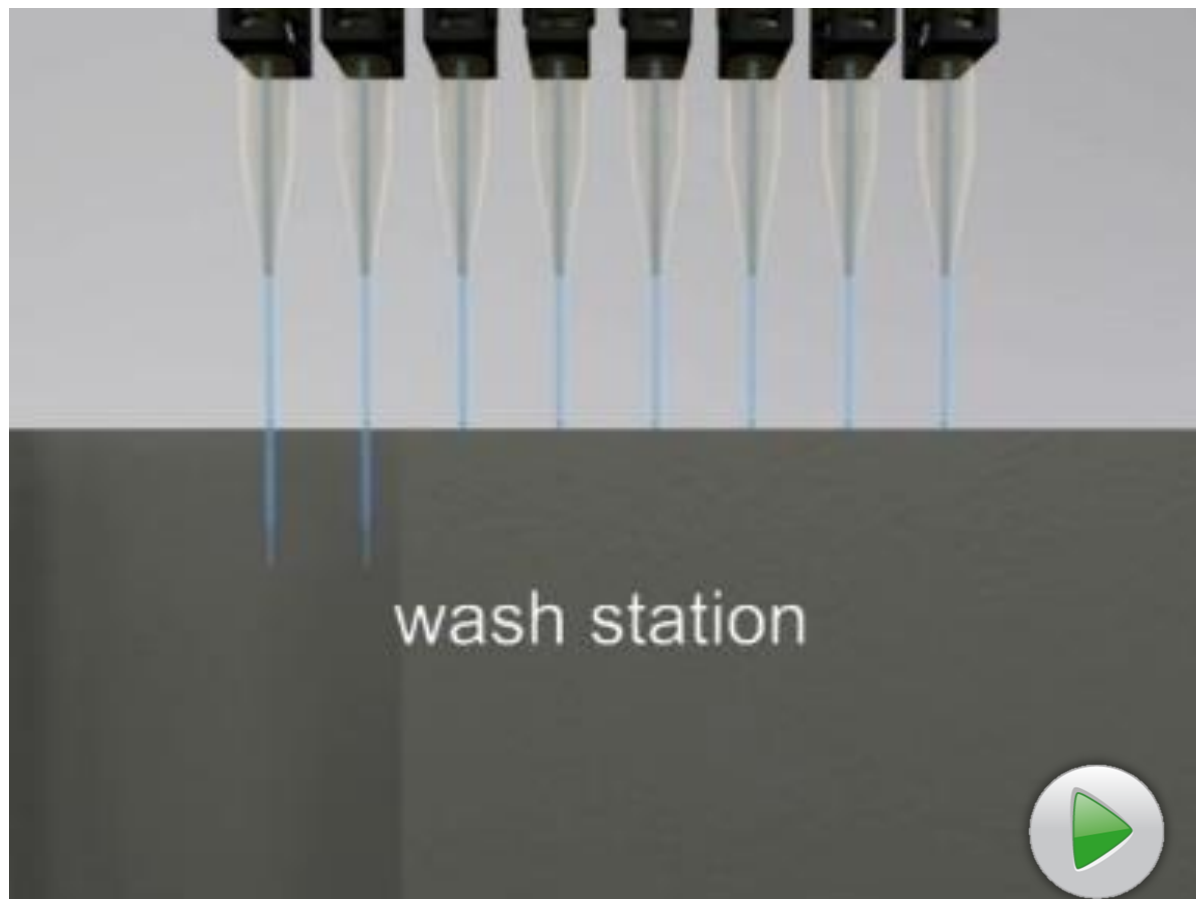




## Tip option



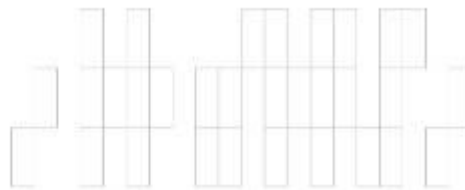
## Fixed Washable Tip WashStation







# Air LiHa



## Air LiHa... Convenient high quality pipetting

- ☒ With a broad Volume Range: 0.5µL to 1000 µL
- ☒ Free dispense down to 0.5 µl
- ☒ A wide choice of Tecan Standard tips (10, 50, 200 and 1000µl LiHa disposable tips)
- ☒ Including PMP liquid classes for 1000µl and 200µl DiTis for serum and water
- ☒ High Safety through
  - Capacitive Liquid Level Detection (cLLD)
  - Pressure-based Liquid Level Detection (pLLD)
  - Pressure Monitored Pipetting (PMP)
- ☒ Satisfies your assay demands for reliable high pipetting quality
- ☒ Offers you greater convenience through elimination of system liquid
- ☒ Increases your system productivity and reduces laboratory costs through lower maintenance requirements



# Pipetting precision (CV)



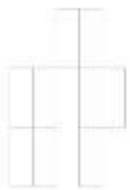
## Liquid Liha

Standard volume Pipetting precision (CV)	Volume	Standard washable tips:	Disposable tips:
	10 µl	< 1.75%	< 2.25%
	100 µl	< 0.4%	< 0.4%

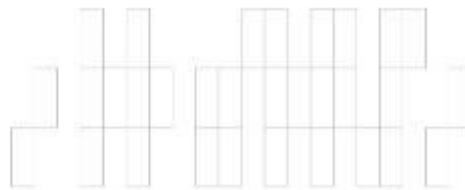
Low volume Pipetting precision (CV)	Volume	Low-volume washable tips:	Low-volume disposable tips:
	1 µl	< 6%	< 6%
	10 µl	< 1.0%	< 1.0%

## Air Liha

Pipetting precision (CV)	Tip volume	Pipetting volume	Precision (% CV)
	10µl	0.5µl	< 6.0
	10µl	1µl	< 4.0
	10µl	10µl	< 1.0
	50µl	1µl	< 4.0
	50µl	5µl	< 1.0
	50µl	50µl	< 0.4
	200µl	10µl	< 1.5
	200µl	200µl	< 0.4
	1000µl	100µl	< 0.4
	1000µl	1000µl	< 0.4



**Freedom EVOware®**  
**application software**



**TECAN.**



**Simple**

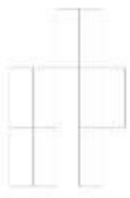
**Easy to start and run scripts  
and processes**

**Intuitive**

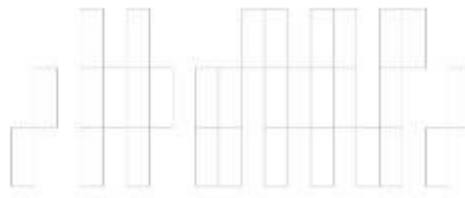
**Rapid definition of new  
processes**

**Flexible**

**Extensible with a wide range of  
devices and applications**



# Freedom EVOware® application software



is a simple and intuitive software for controlling  
the Freedom EVO® series of platforms and a wide variety of devices.



uses the same intuitive graphical user interface  
and has a fully integrated scheduler to control multi-plate assays.

# Freedom EVOware® application software

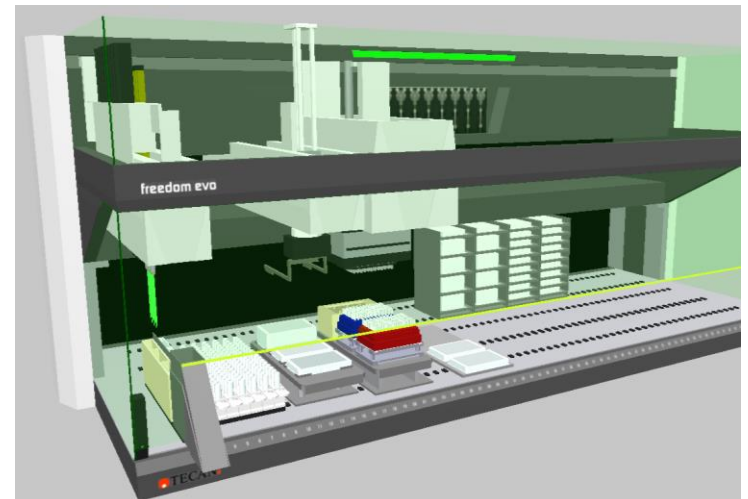


## Starting a method



Running methods in Freedom EVOware® is *simple*:

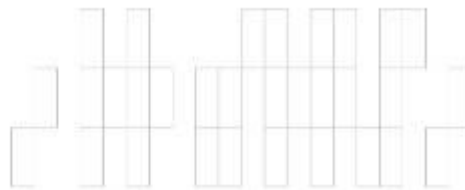
- Double-click the icon
- Optional authentication
- Select method
- Press “run” to start







# TouchTools



 **TECAN.**

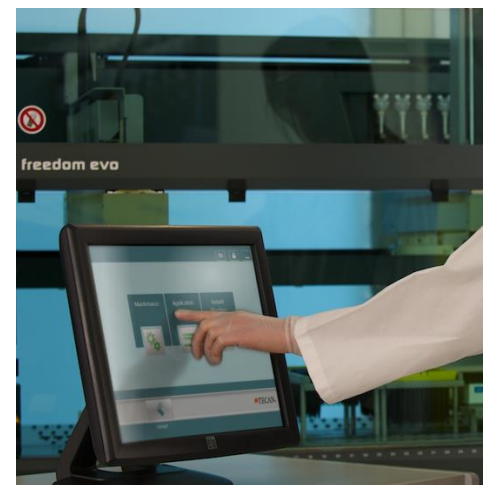
## TouchTools – simply greater efficiency

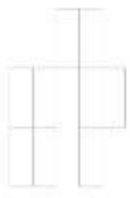


**An intuitive interface designed to for the everyday operation of Freedom EVOware®**

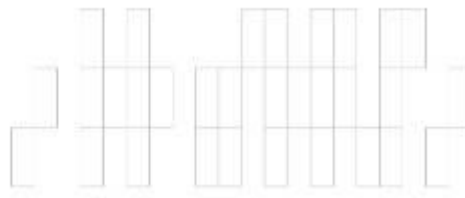


**Easily program and execute your specific laboratory workflow and SOP's**





# TouchTools



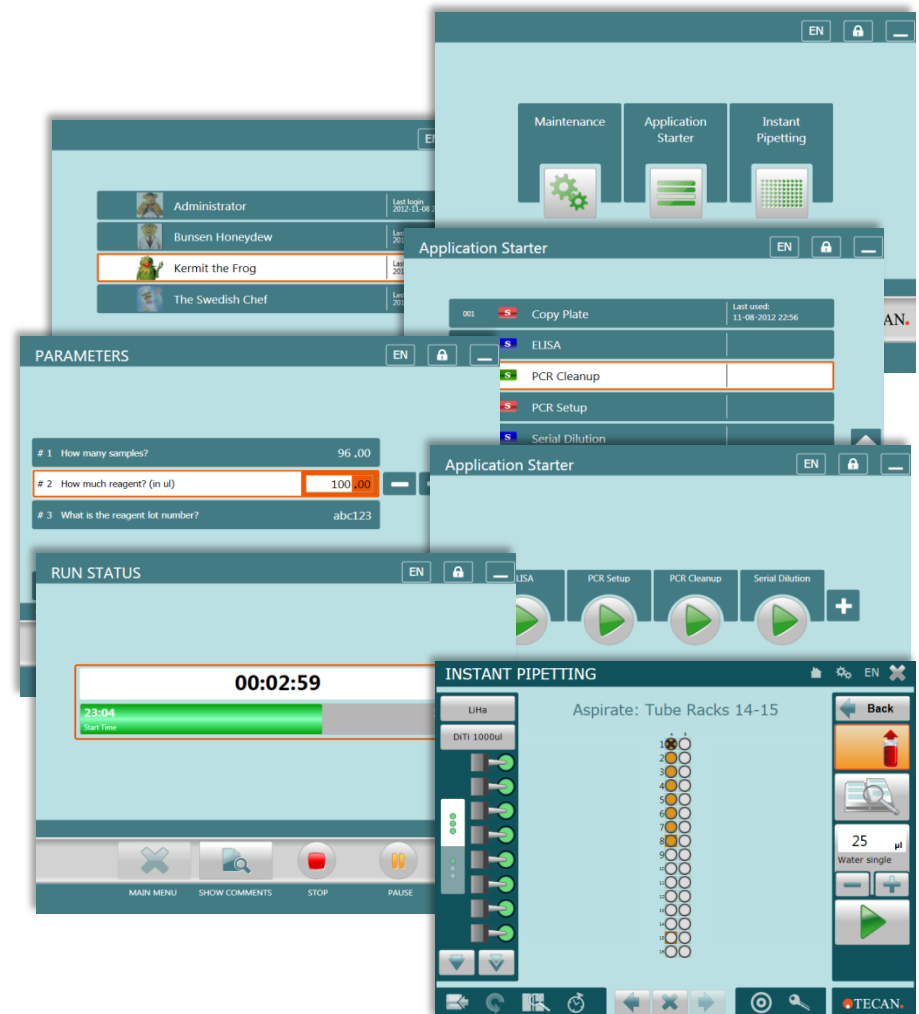
 **TECAN.**

## Standard TouchTools Features



**Get all of the following  
with no programming:**

- **Easy Login**
- **Mode Selection**
- **Script management**
- **Input variable screens**
- **Easy to see run status**
- **Instant Pipetting**

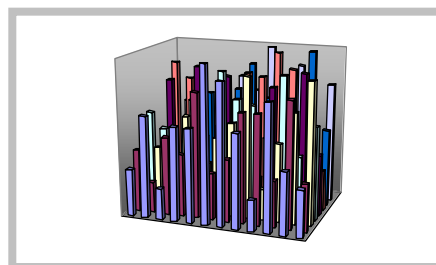


# Quantitation and normalization wizards



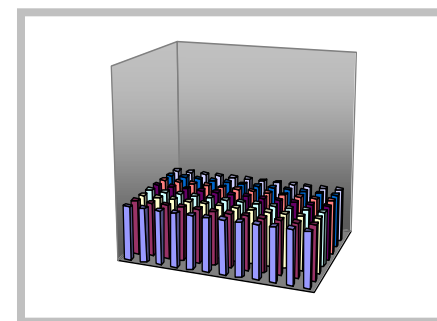
## Extraction and Purification

On Freedom EVO® with Te-MagS™  
Te-VacS™



## Quantitation

PicoGreen® (on Freedom EVO®)  
OD 260 / 280 (on Freedom EVO®)  
RT-PCR



## Normalization

On Freedom EVO®

# Application

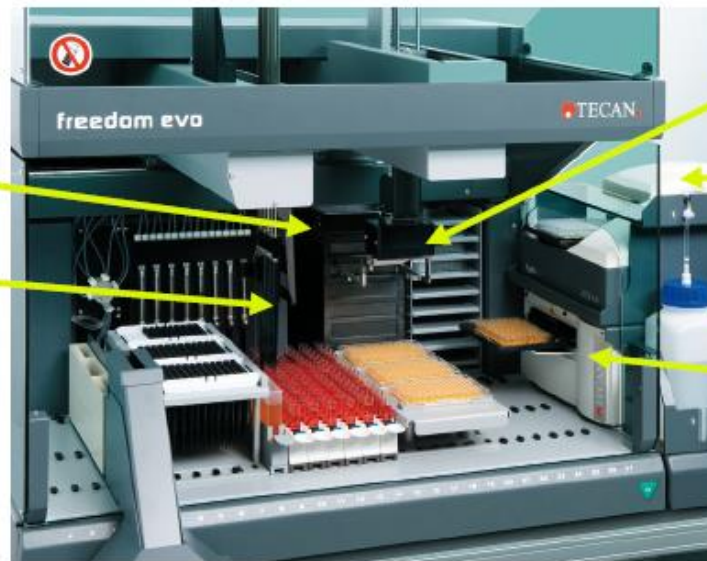


## Automated ELISA system

- ✓ **The Freedom EVO workstation configured with Arm and Robotic Manipulator Arm economically enables the full automation of ELISA assays.**

Heated incubator  
available with or without  
shaking

8 Plus 1 Access liquid handling arm



Robotic plate manipulator arm

HydroFlex plate washer

Sunrise plate reader

# Application

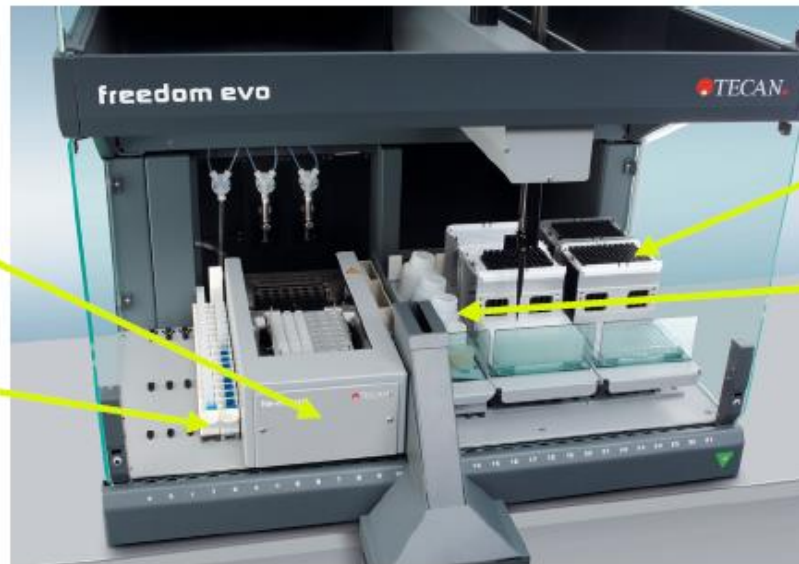


## Nucleic acid extraction system

- ✓ The Freedom EVO workstation compact pipetting platform can be configured for extracting genomic DNA, viral DNA or RNA from 1 to 96 samples.

Te-MagS  
magnetic separation  
module with heated position

Sample Tubes



4 Disposable tip positions

Reagent vials



# Application



## Automated Luminex system

- ✓ The Luminex xMAP multiplexing technology allows researchers to perform numerous tests simultaneously for detection of gene sequences, protein interactions and other biological reactions, on the surface of fluorescent-coded microspheres.

HydroFlex™ washer  
with optional Magnetic  
Bead Separation



Luminex® 200 analyzer

Te-Shake™ plate shaker



(주) 그린메이트  
GreenMate Biotech Corp

**Thank you for your attention.**

