



# MGIGLab-L

## Automated Library Preparation Production Line

- Ultra High-throughput
- Walk-Away Automation
- Intelligent Customization



# MGI, Best Automated Genomics Production Line Package Partner

MGI Tech Co., Ltd. (referred to as MGI) is committed to building core tools and technology to lead life science through intelligent innovation. MGI focuses on R&D, production and sales of DNA sequencing instruments, reagents, and related products to support life science research, agriculture, precision medicine and healthcare. MGI is a leading producer of clinical high-throughput gene sequencers, and its multi-omics platforms include genetic sequencing, mass spectrometry, medical imaging, and laboratory automation.

With more than 20 years' experience in genomics application and advanced capabilities in instrument manufacturing and system integration, MGI is able to provide customized system design, professional service of integration and installation, ensuring that customers have ultra high-throughput automated genomics production line packages.

## Why MGI?

20+

More than 20 years' Experience  
in Genomics Application



Professional and Specialized  
Automation Development Team



Instrument, Integration and  
Software Total Package



Always Customer Focus  
with Customized Service

## MGI Automation Product Package

### Automated Sample Preparation System



MGISP-100

### Modular Workstation



MGIFLP-SL200

### Automated Production Line



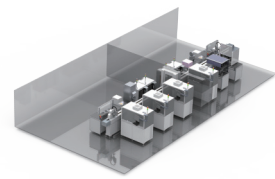
MGIGLab-S



MGISP-960



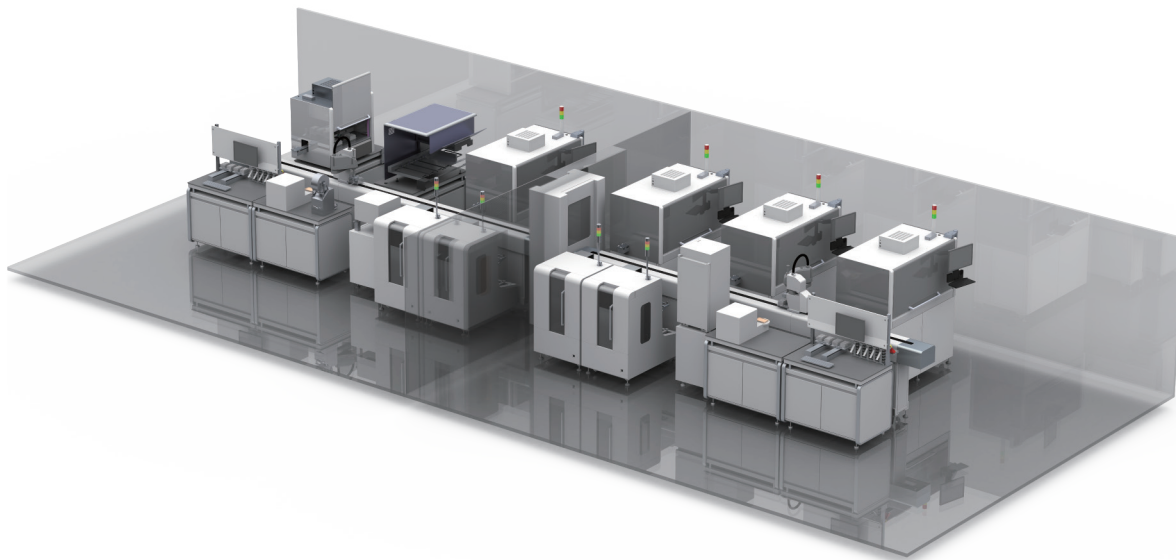
MGIFLP-L200



MGIGLab-L

# MGIGLab-L Automated Library Preparation Production Line

Integrating different MGI and third-party instruments with automated robot on track, adopting streamlined design of stations, accomplishing complete library preparation workflow automation, making an annual production output of one million samples possible.



## Efficient

From independent automation equipment to complete workflow, 7x24h operation



## Intelligent

Layered management among production & instrument management under intelligent scheduling in parallel with control



## Stable

Streamlined design of stations, independently process running without mutual interference



## Integrated

Flexible integration of MGI and third-party instruments for different application



## Real-time

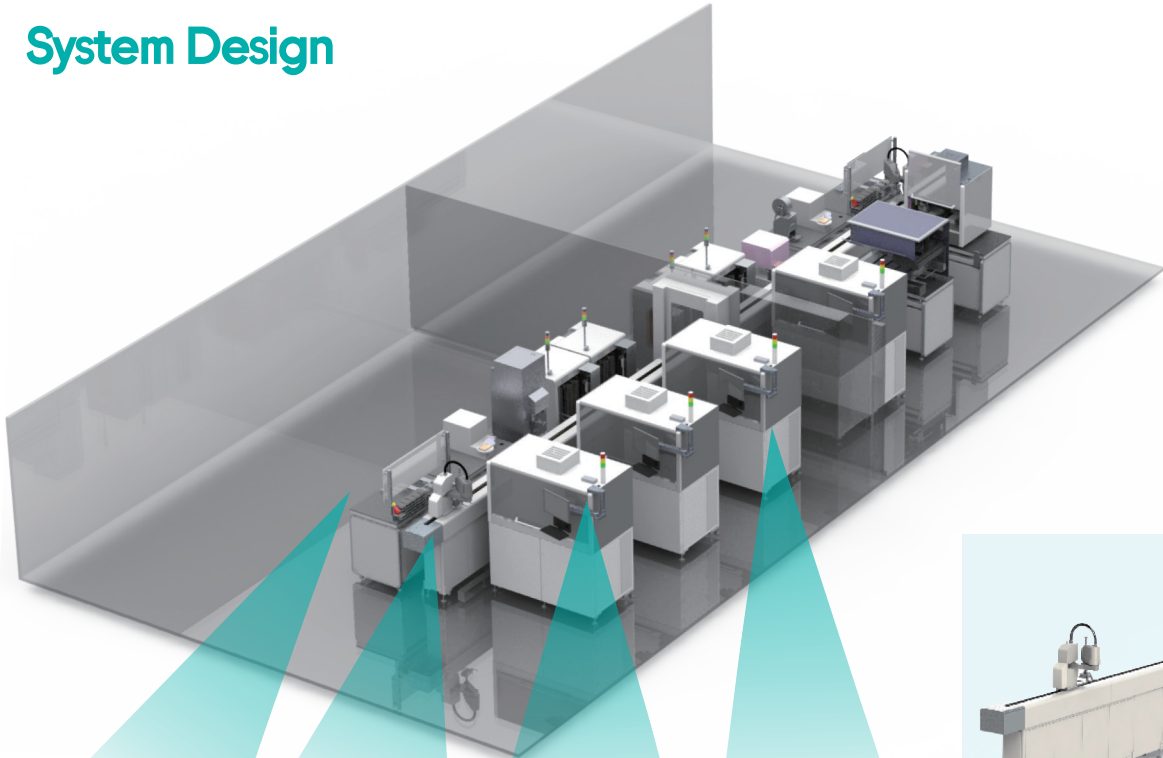
Various sensor detection and barcode scanning management, real-time production monitoring



## Safe

Comprehensive hardware protection and software error management, maximum safety of samples and technicians

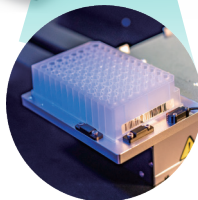
# System Design



SCARA Robot 360°  
Plate Gripper



Precision Pipetting



Sample Loading in Human-  
Machine Interaction Area



Consumable Storage  
& Loading



Microplate  
Transfer Robot

SCARA robot on track,  
completing microplate  
transfer between instruments.



High-throughput Automated  
Sample Preparation System

96-channel High-precision pipetting head with gripper, Integrated PCR and temperature control module, performing nucleic acid extraction and purification, enzyme reaction and product purification.



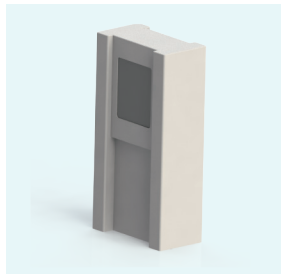
Microplate  
Storage Hotel

Storing and providing  
consumables and  
reagents under room  
temperature



Human-Machine  
Interaction Area

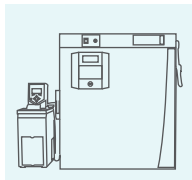
Production line control  
center as well as the  
human-machine interface.



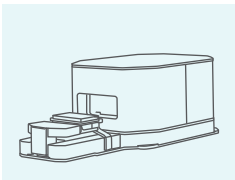
Microplate  
Delivery Window

Physically isolating pre-PCR  
and post-PCR areas,  
avoiding cross-contamina-  
tion.

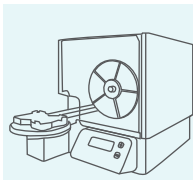
## 3<sup>rd</sup> Party Instrument



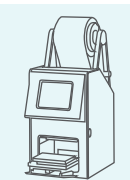
Low Temperature  
Incubation &  
Storage system



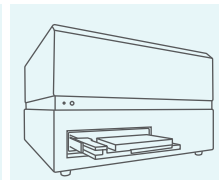
Microplate Centrifuge



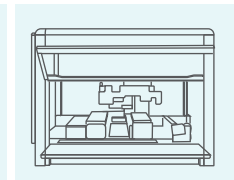
Automated Plate  
Seal Removal



Microplate  
Sealer



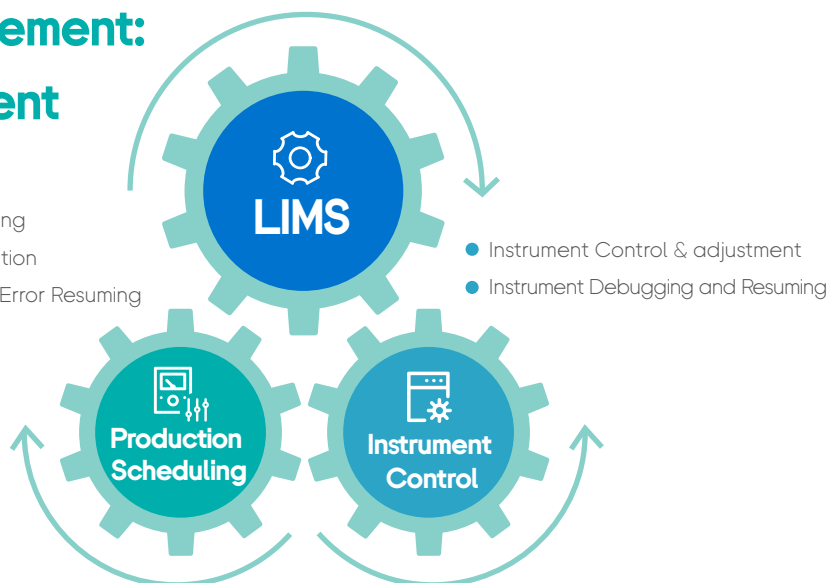
Microplate Reader



Liquid Handling  
Workstation

## Classification Management: Production & Instrument

- Production Scheduling
- Production Prioritization
- Production Process Error Resuming



## Intelligent Scheduling & Control



**Intelligent**

Efficient resource scheduling. Tasks are released according to production saturation, ensuring maximum production capacity.

**IOT**

Internet of instruments, ensuring real-time production monitoring.

**Warning**

1. Instrument abnormality.
2. Remaining quantity and real-time status of materials.
3. Non-conforming samples.

**Convenient**

User interface is simple and easy to operate.

**Extendable**

1. Supporting automated sample preparation.
2. Supporting quick extension of many more applications

## Production Monitoring: Real-time & Visualization



**Sample Size**

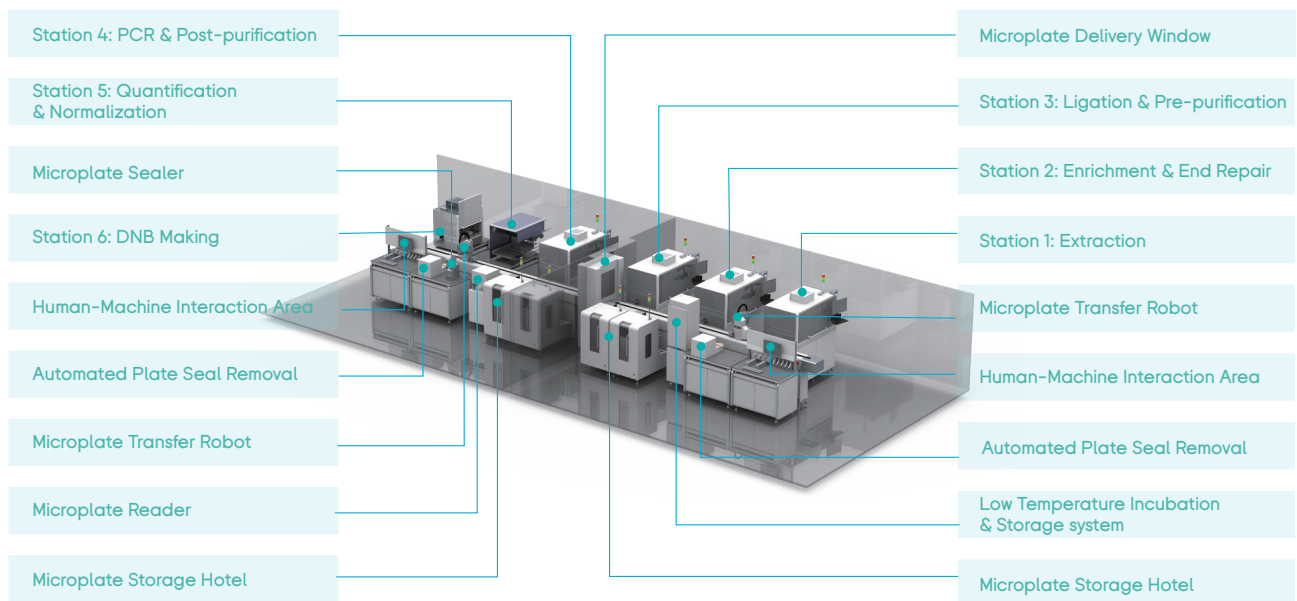
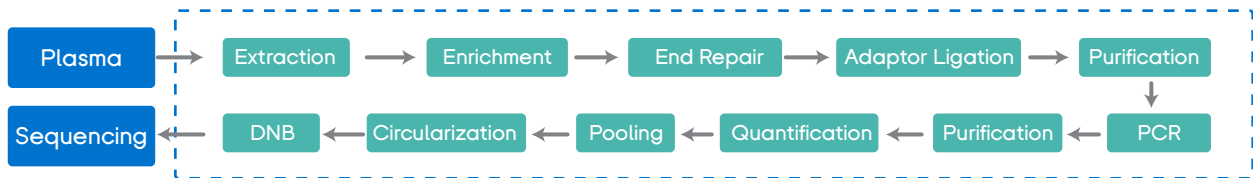
**Sample & Instrument Warning**

**Production Schedule & Instrument Status Monitoring**

**Production Line Monitoring**

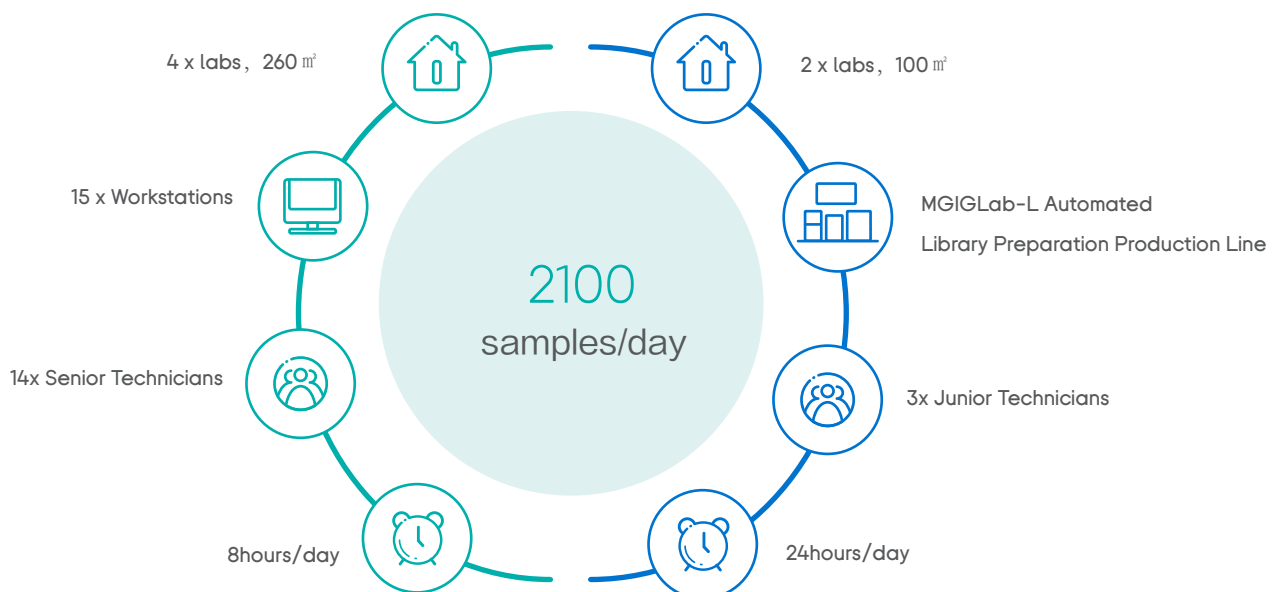


# MGIGLab-L Automated Library Preparation Production Line for NIPT Laboratory



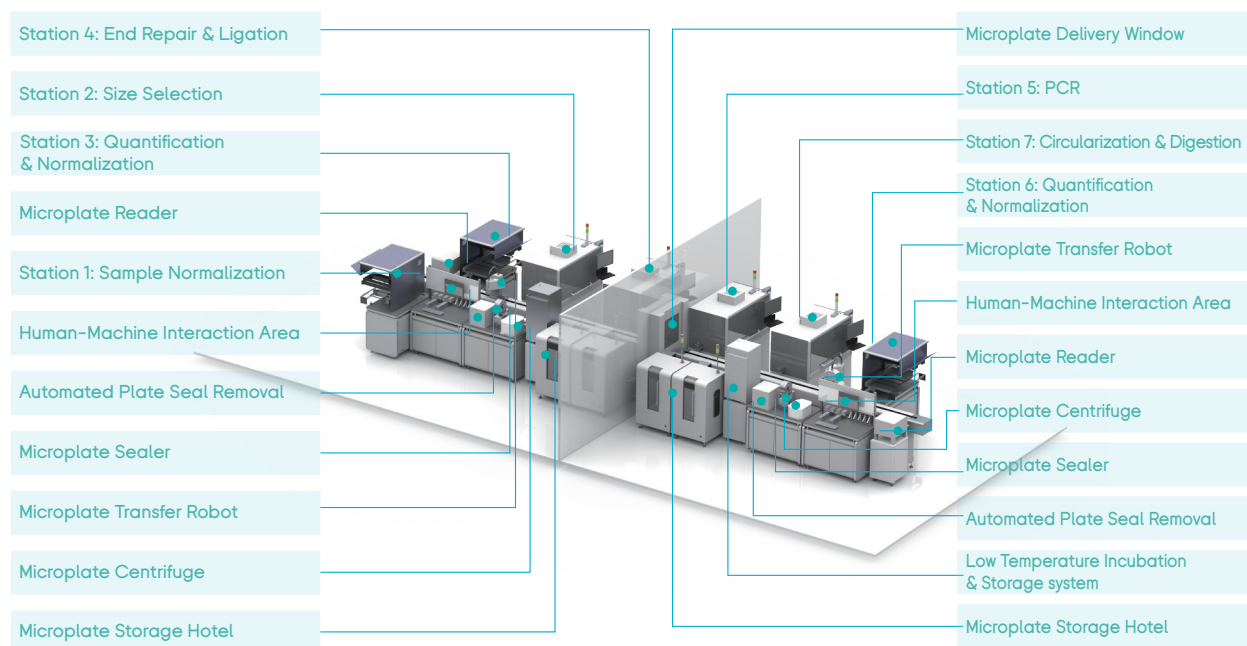
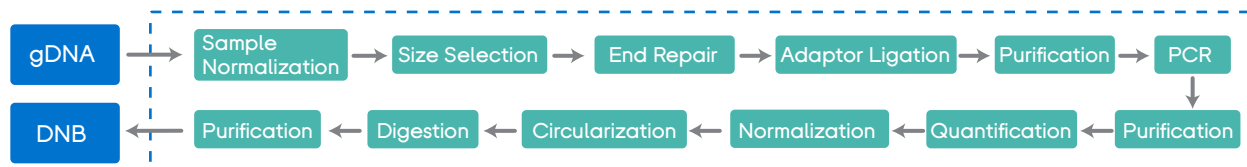
## Semi-automated Library Preparation Workstations

## MGIGLab-L Automated Library Preparation Production Line for NIPT Laboratory



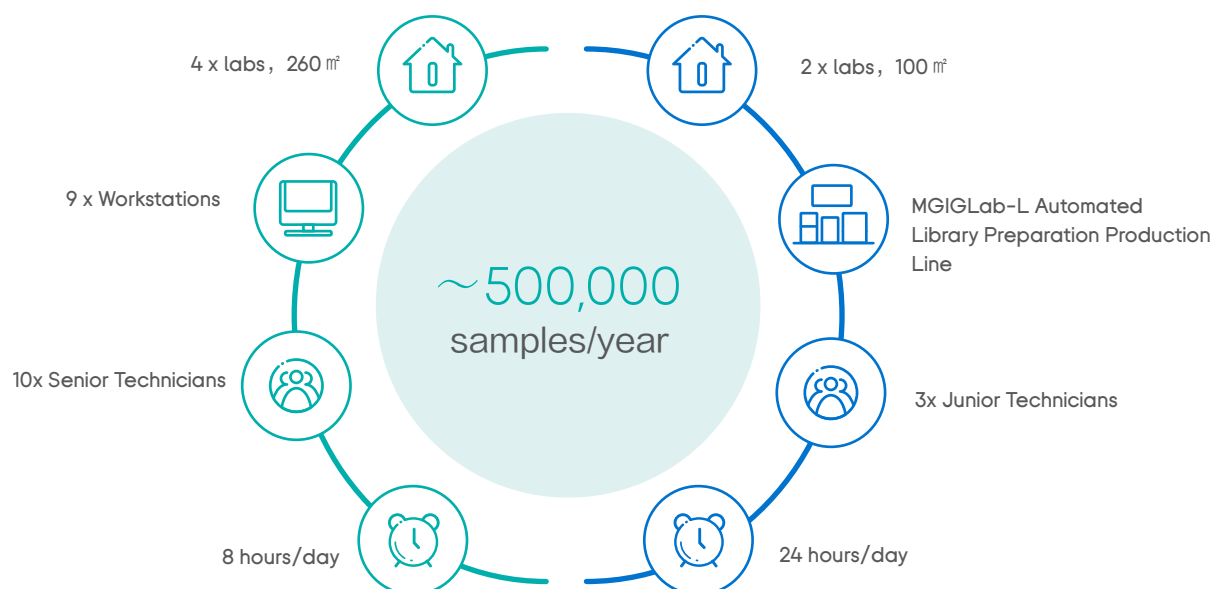
# MGIGLab-L Automated Library Preparation

## Production Line for WGS Laboratory



**Semi-automated Library Preparation Workstations**

**MGIGLab-L Automated Library Preparation Production Line for WGS Laboratory**





## CONTACT US

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