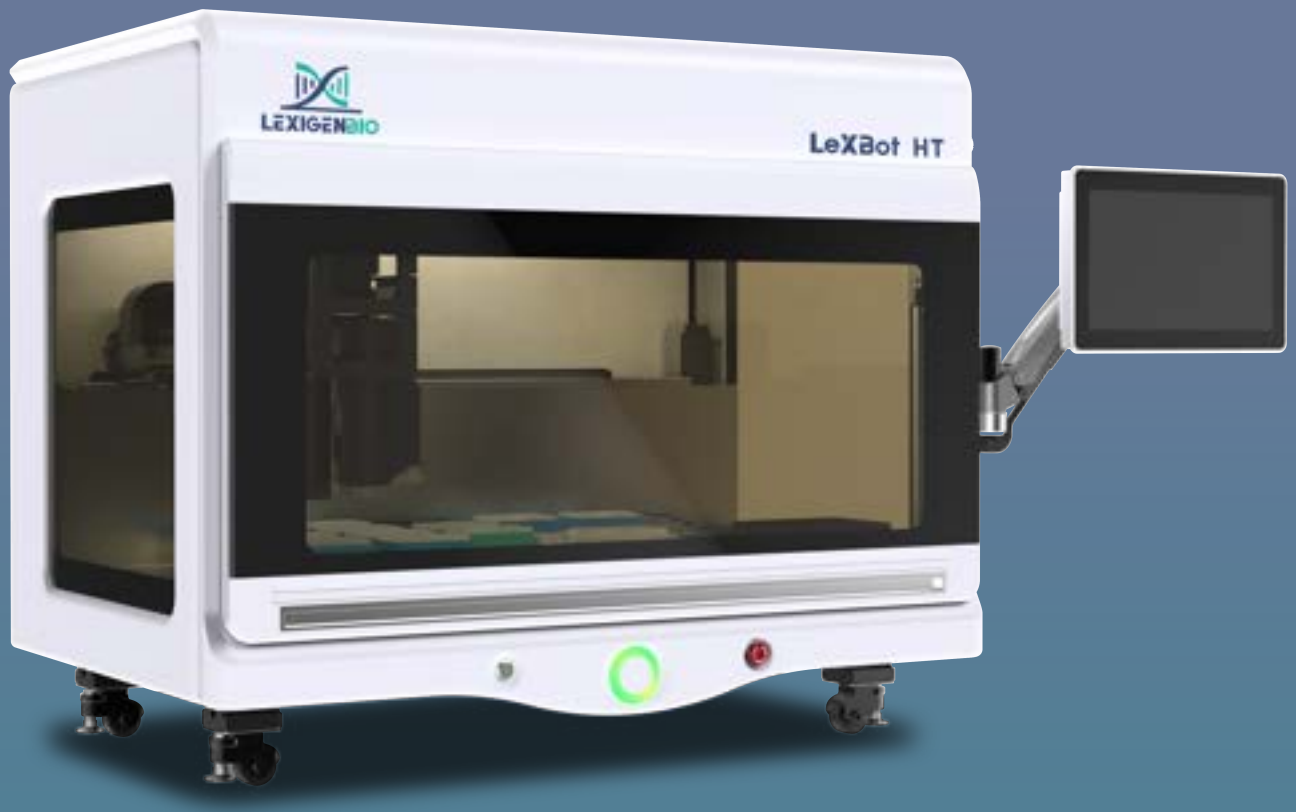
LEXIGENBIO

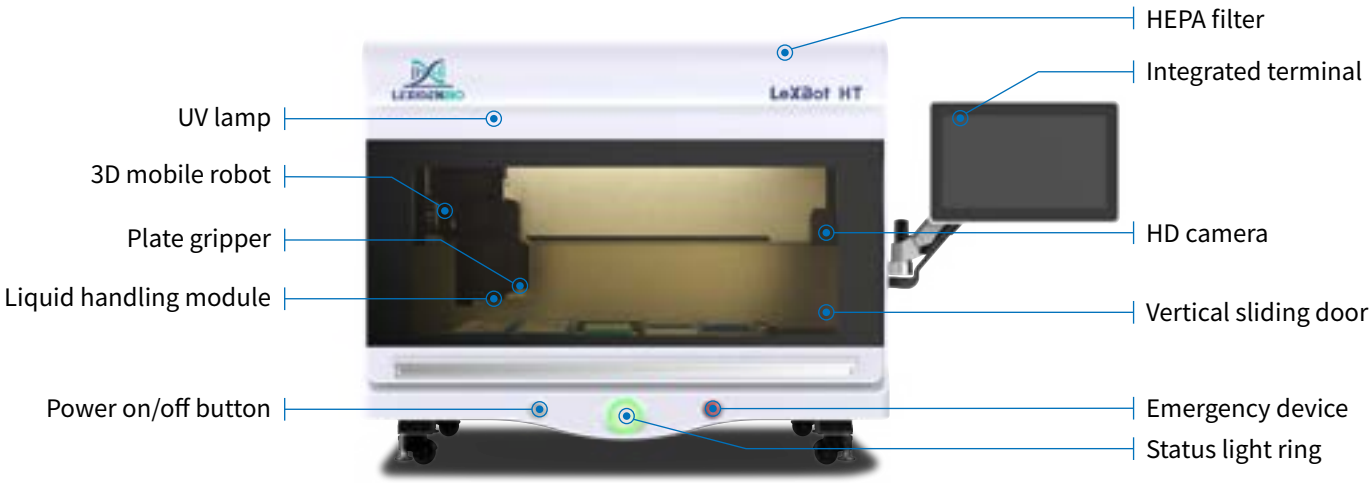


LeXBot HT

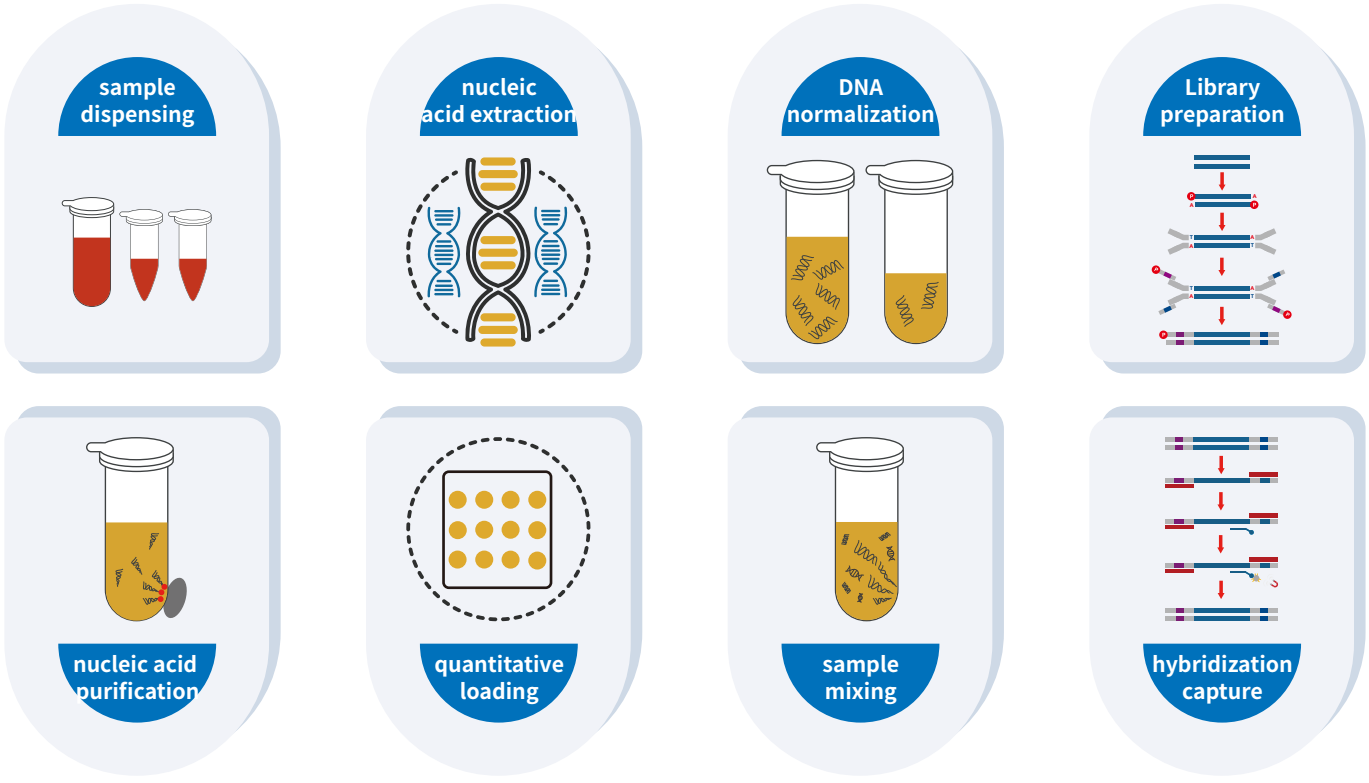
Fully-automated NGS Workstation

PART 01
Introduction

LeXBot HT Fully-automated NGS Workstation, independently developed by LexigenBio, is specially designed for automated NGS library preparation. It encompasses sample dispensing, nucleic acid extraction, DNA normalization, nucleic acid purification, quantitative loading, and sample mixing, library preparation, and hybrid capture, all aimed at dramatically accelerating laboratory throughput and advancing scientific discovery. The workstation is equipped with a 24-channel pipetting head that flexibly supports the loading of 1/8/16/24 pipette tips and seamlessly integrates a plate gripper, thermal cycler (brand optional), temperature control module, heating and oscillating module, purification module, fluorometer module, UV lamp set, and HEPA filtration system. With 24 built-in SBS standard plate positions, this workstation achieves a maximum throughput of up to 48 pre-libraries or 24 hybrid capture reactions per run, meeting the demands of large-scale, high-throughput applications.



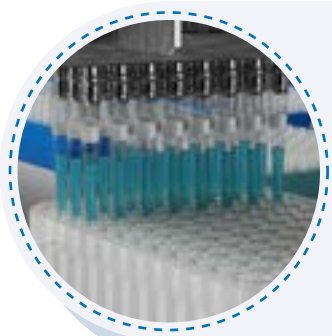
PART 02
Application



PART03 Highlight

- 24 standard SBS built-in plate positions, allowing freely configurable dynamic deck layouts to meet diverse experimental needs.
- Seamless integration of multifunctional components, including thermal cycler, temperature control, heating and oscillation, purification, and fluorometer modules.
- Equipped with a HD wide-angle camera for continuous video recording of operations, facilitating retrospective error review.
- A 3D robotic arm with a plate gripper intelligently handles various consumables, ensuring complete deck coverage.

Flexible Integration



- Multi-channel pipetting (1/8/16/24) with liquid-level detection and intelligent tracking for precise dispensing.
- 24-channel pipetting head offers segmented Z-axis descent (movement, detection, and aspiration).
- Supports a maximum throughput of up to 48 pre-libraries or 24 hybrid capture reactions, meeting varying throughput demands.

Versatile Application

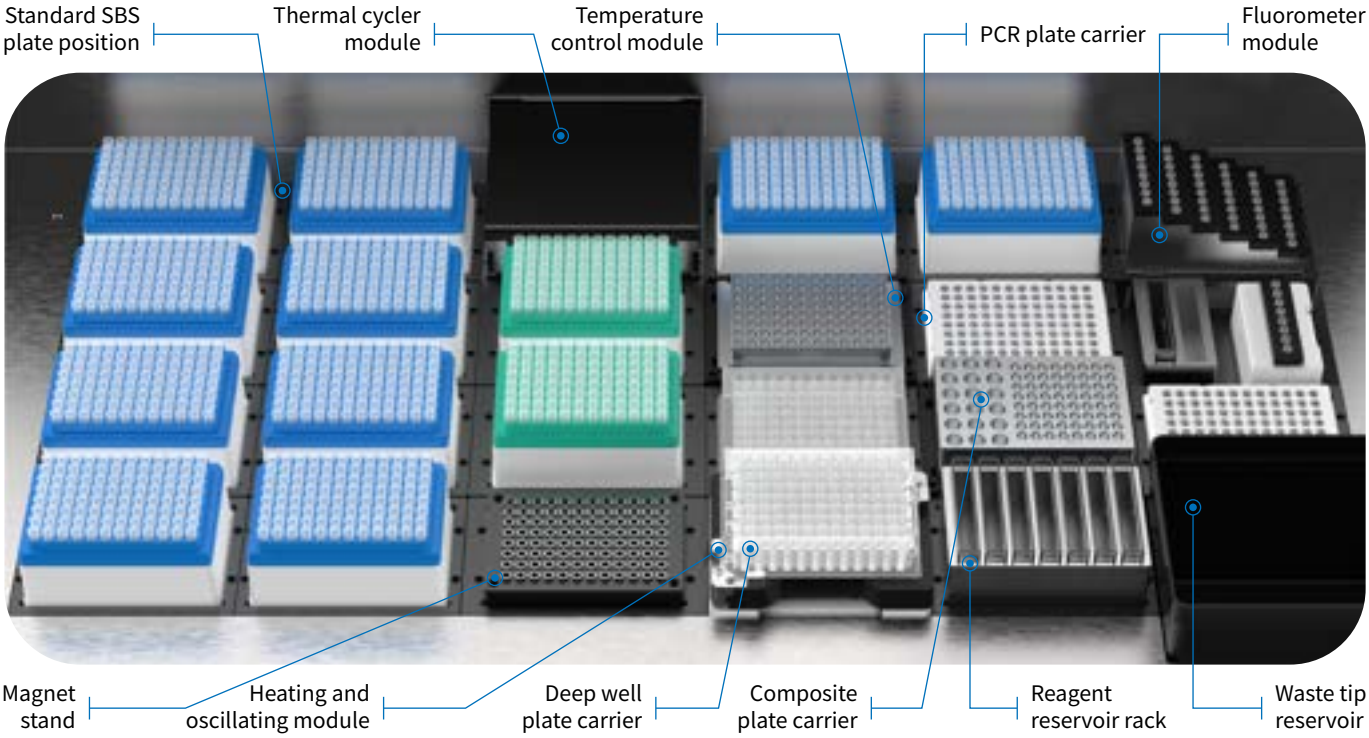
- Preset for NGS library preparation and hybrid capture; supports custom applications and script development.
- Magnetic sliding window design for effortless operation and enhanced user comfort.
- High-definition touch-sensitive LCD screen with adjustable height and angle for easy viewing and operation.
- Graphical process editing with drag-and-drop script elements enables zero-threshold visual programming for seamless human-machine interaction.

User-friendly Simplicity

- Bright, multi-color status indicator lights provide real-time updates on operational status, minimizing downtime caused by hardware or software errors.
- Equipped with an emergency pause button for one-touch emergency stops, ensuring human-machine safety.
- Standard HEPA filtration system and UV lamp maintain a continuously clean operating environment.

Secure and Reliable

PART 04
Deck Layout



PART 05
Component

Temperature Control Module

- Consists of 2 modules.
- Temperature control range: 4°C to 75°C.
- Temperature accuracy: ⩽±1.0°C.
- Temperature uniformity: ⩽1.0°C.
- Temperature fluctuation: ⩽±0.5°C.

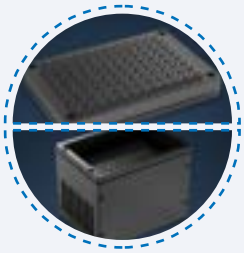
Thermal Cycler Module

- Brand optional.
- Temperature control range: 4°C to 99°C.
- Heated lid temperature range: 30°C to 110°C.
- Average heating rate: ⩾ 3.0°C/sec.
- Average cooling rate: ⩾ 1.5°C/sec.
- Temperature accuracy: ⩽ ±0.5°C.
- Temperature uniformity: ⩽ 1.0°C.
- Temperature fluctuation: ⩽±0.2°C.

Heating and Oscillating Module

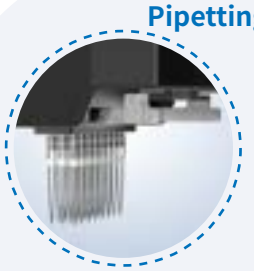
- Temperature control range: (room temperature + 5°C) to 99°C.
- Temperature accuracy: ⩽±2.0°C.
- Temperature uniformity: ⩽1.5°C.
- Temperature fluctuation: ⩽±0.5°C.
- Oscillating speed adjustable from 200 rpm to 2,000 rpm.
- Oscillating speed accuracy: ⩽±25 rpm.

Purification Module



- Function optional.
- movable 96-well PCR plate ring magnet stand.
- liftable 96-well deep-well plate ring magnet stand.

24-channel Pipetting Module

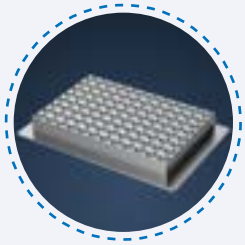


- liquid-level detection supporting intelligent liquid-level tracking.
- Segmented Z-axis descent (movement, detection, and aspiration).
- Pipetting range: 2 μL ~ 200 μL.
- Performance:
  - 2 μL: CV < 5%, accuracy < ±10%.
  - 200 μL: CV < 1%, accuracy < ±1%.

Fluorometer Module

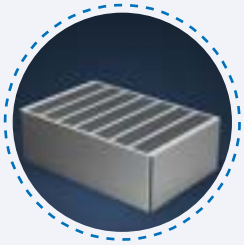
- Quantification with support for normalization and pooling.
- Rapid: 3 ~ 5 sec per measurement.
- Low input: 1 μL ~ 20 μL.
- High sensitivity: 0.01 ng/μL (dsDNA).
- Detection range: 0.5 ng/μL ~ 100 ng/μL.
- Throughput: 8 samples per run, up to 48 samples per batch.

PCR Plate Carrier



Composite Plate Carrier

Reagent Reservoir Rack

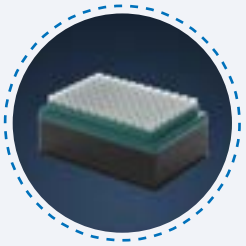


Deep-well Plate Carrier

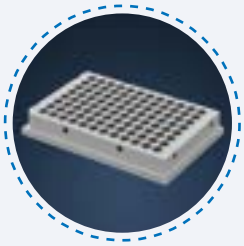
PART 06 Consumable

200 μL filtered tip

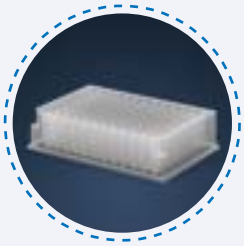
50 μL slim-profile filtered tip



fully skirted 96-well PCR plate



1.3 mL U-bottom deep-well plate

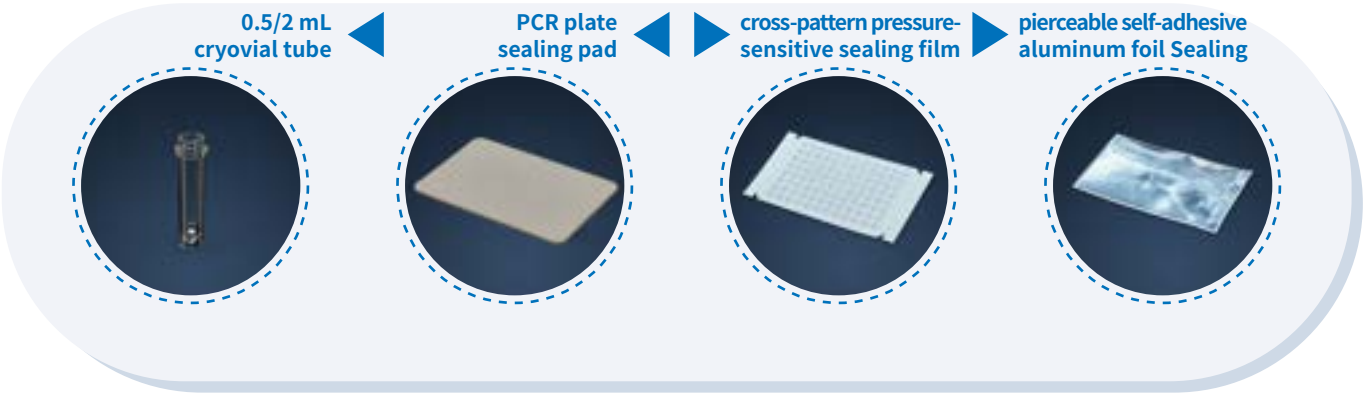


25 mL reagent reservoir

22 mL 12-channel reagent reservoir

fluorometer 8-strip tube

0.2 mL thin-wall PCR 8-strip tube



PART 07 Specification

Host Parameters	Size 1,160 mm (width)×800 mm (depth)×955 mm (height)		**Weight**	200 Kg
	Maximum output power	1,700 VA		
Power Requirements	Voltage	AC 100 V ~ 240 V	Frequency	50/60 Hz
Operating Environment	Temperature range	10°C ~ 30°C	**Relative humidity**	20% ~ 80%, non-condensing
	Barometric pressure range	86 kPa ~ 106 kPa		
Robot Arm	Repeated positioning	±0.1 mm		

PART 08 Ordering Info

Catalog	Product	Scale
LX07504	LeXBot HT Fully-automated NGS Workstation	Unit, RUO

Statement

For research use only. Not for use in diagnostic procedures.

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