

# Automated Lenses Assembly Machine

*High Precision*

## TURNKEY SOLUTION

Seamless integration with your existing camera modules production line to boost your productivity. No need to alter any of your existing equipment. It is a great add-on for your factory floor.

## MAXIMUM FLEXIBILITY

Self-contained and designed to work with independently. Optional FFU can be installed to make it compatible with your clean room requirements.

## QUALITY DESIGN AND DURABILITY

Robust system design with excellent ergonomics. The equipment uses only choicest parts to ensure high quality and long durability.



- Ultra-short Cycle Time to boost your productivity
- Compatible with various lenses shapes and sizes
- precise torque control to  $\pm 1.0$  gf-cm
- Intelligent software
- Clean room compatible (optional)

In camera modules production, the lenses are required to be assembled with the lenses holder at very high precision. This machine accepts separate feeding of lenses and lenses holder and then inserts the lenses into the lenses holder by using computer vision to aid the process. The height of lenses to be inserted into the lenses holder is controlled by using a precision probe (or laser as an option). And the torque required to insert threaded lenses into the lenses holder is also controlled precisely.

Until recently, this assembly process must be completed using very intensive manual labor. And it is not easy to precisely control the torque (for threaded lenses) and/or the height of the lenses. Manual labor inevitably increases the likelihood of damaging the threads of the lenses resulting in lower yield. The automated lenses insertion system for mobile phone lenses is designed to be used in a mass production environment.

The short cycle time can be achieved by an optimized operation sequence. The system is designed with ease of use and trays can easily be placed inside or removed from the system. The assembled parts are then orderly placed in the output tray without any intervention of an operator. This not only significantly increases the throughput and the yield but at the same time avoid any human errors or any unnecessary risks of contamination from the operator.

The automated lenses insertion system is equipped with clean room FFUs that can be placed inside any cleanroom environments. It is the perfect solution to increase your production throughput while boosting a higher quality of the final product.

# Software Features

## PROFESSIONAL SOFTWARE

Modular software architecture that supports various types of lenses. Intuitive software interface design for ease of operation.

## COST EFFECTIVE

Ultra-high throughput and short cycle time and at the same time a very cost-effective solution to suit your need.

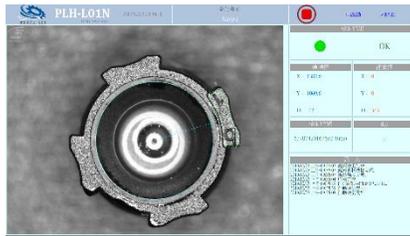
## TECHNICAL SUPPORT

From pre-sales technical consultation to post-sales on-site installation and technical support, we provide world class professional support.

To learn more about the product and see it in action, please visit <https://youtu.be/iGqEDaSBLp4>

For more information on any of our products or services please visit us on the Web at:

[www.pinnacle-techpro.com](http://www.pinnacle-techpro.com)



Software GUI

- Support State-of-the-art fly-by visual system inspection of parts to ensure maximum throughput
- Intelligent Algorithm for fast assembly process
- Intuitive software interface
- Open process language for fast and easy process optimization

# System Specification

Model: PLH-L01N-A	
Cycle Time Per Sample	Less than 5 seconds
Motor System	Servo motor system
Supported Lenses Size	φ 2.8mm~ φ 15mm
Controlled Lenses Height Accuracy	±0.025mm
Torque Control	0-5000 gf-cm; resolution ±1.0gf-cm
Power	3-phase, AC 220V, 50/60Hz
Compressed Air	6 Kg/ cm <sup>2</sup> 150L/min
Power Consumption	2.0 KW
Dimensions	1100 (L) x 700 (W) x 1700 (H) mm
Weight	300 Kg

Specification subject to change without notice

## SERVICES AVAILABLE

- Customized Turnkey Solutions   Technical Support  
 Installation and Setup   Maintenance   Application Support  
 Hardware Support



Inside Working Chamber



PINNACLE TECH

8/F-2, 260 New Taipei Blvd, Sec 2,  
 Sanzhong District,  
 New Taipei City 241, Taiwan  
 Phone 02.8511.1251  
 Fax 02.8511.1257

