

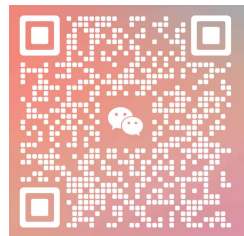


# Fully Automatic Visual Printing Machine



**Shenzhen Hongxinteng Technology Co., Ltd.**

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# Technical Parameters and Specifications

Name	Technical Parameters
Frame min-size	470 × 370mm
Frame max-size	800 × 700 mm
PCB 最小尺寸 /PCBSize	50 × 50mm
PCB Size	520 × 400 mm
PCB Thickness	0.4~6mm
PCB Distortion	Max, PCB diagonal 1%
Support System	Automatic top flattening, flexible edge clamp
Table Adjustment Ranges	X : ± 5mm ; Y : ± 5mm ; θ : ± 2 °
Conveyor Speed	Max 1000mm/S Programmable
Conveyor Height	860~940mm
Conveyor Direction	Left-Right , Right-Left , Left-Left , Right-Right
Squeegee Pressure	0.5~0.7Kgf/cm <sup>2</sup>
Printing Speed	10~200mm/sec
Squeegee Angle	60 ° (standard), support customized
Squeegee Type	Steel scraper (standard), rubber scraper (customized)
Alignment Mode	Use the camera to detect the PCB Mark position and correct it visually
	The system software controls the universal workbench to correct the X-Y-angle direction to realize the alignment between the screen and the substrate
Fiducial Mark Shape	any shape
Fiducial Mark Size	It can be made into various shapes of holes with a diameter or side length of 0.5mm~2.5mm, and the allowable deviation is 10%
Fiducial Mark Requirement	The surface of the marking dot coating is required to be flat and smooth
Repeat Positioning Accuracy	±0.01mm
Printing Accuracy	± 0.05mm
Cycle Time	< 12s (excluding printing))
Power Input	AC 220V ±10%, 50/60HZ, 2KW single phase
Machine Dimensions	1180 (L) × 1120 (W) × 1480 (H)mm
Weight	about 600kg

# Product Description

## Image Processing

Scraper left and right and front and rear running direction optional

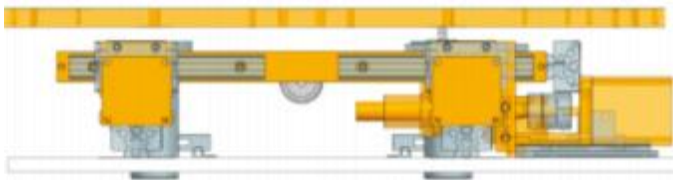
## Operation interface



The gantry-type scraper beam, the scraper is controlled by a motor, and the scraper force can be controlled digitally. The bracket of the stencil is suitable for the stencil used by the customer in the past semi-automatic or without a visual printing machine to ensure the uniformity of the customer's stencil.

Coaxial with high-precision camera and telecentric lens  
Combination of light sources to ensure that Mark points can identify each  
Different colors of PCB boards such as: copper plating, tin plating, Gilding etc.

Window10 system, simplified operation steps, optimize the process, and allow operators to complete the programming of line-changing products automatically and independently after one training session.

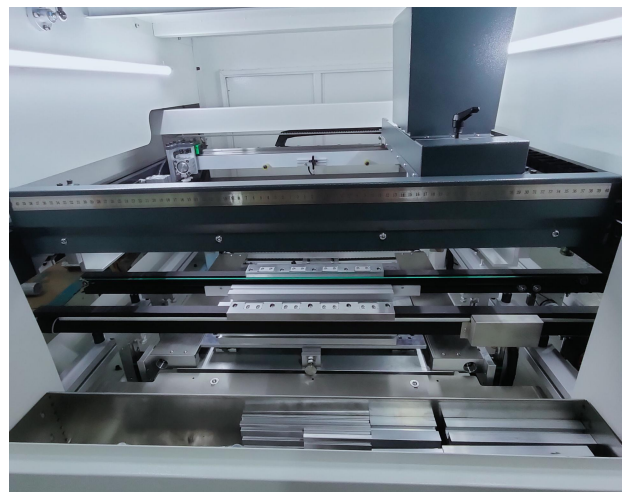


## Features

Dedicated Platform Calibration  
Can realize X Y  $\theta$  axis position adjustment to ensure printing accuracy

## Transportation System

Composition: Including transport guide rails, transport pulleys and belts, stepper motors, stop board devices, guide rail width adjustment devices, etc.  
Functions: Automatically adjust PCB board entry and exit transportation, stop board position and guide rail width to adapt to PCB substrates of different sizes.



# Product Description



## Steel mesh clamping device

Composition: Including stencil moving device and stencil fixing device, etc.

Function: The width of the clamping stencil can be adjusted, and the position of the stencil can be fixed and clamped.

## PCB board flexible clamping and positioning device

Composition: Magnetic top block, PCB board positioning block, etc.

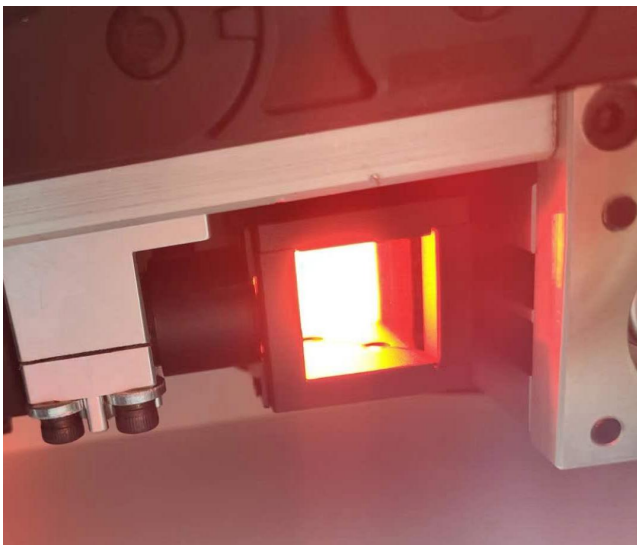
Function: The flexible board handling device can position and clamp PCB substrates of various sizes and thicknesses, with a movable magnetic top block and 0.12mm thin pressing sheet, which can effectively control the rocker of the PCB substrate and prevent board deformation.



## Visual System

Composition: Including CCD motion part and CCD-Camera device (camera, light source) and high-resolution display, etc., controlled by vision system software.

Functions: High-precision vision system control and lens light source lighting, high-speed moving lens ensures fast and accurate alignment of PCB and stencil, unlimited image pattern recognition technology with 0.01mm recognition accuracy.



# Product Description



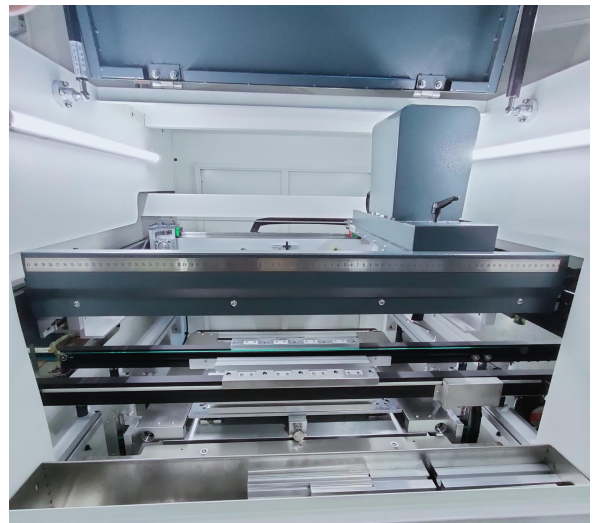
## Scraper System

Composition: Including printing head (scraper lifting stroke adjustment device, squeegee blade installation part), squeegee beam and squeegee driving part (stepping motor, precision screw rod), etc. Function: Suspension printing head, with a specially designed high rigid structure, the pressure and speed of the squeegee are controlled by the driver, easy to adjust, and maintain uniform and stable printing quality.

## Adjustable Printing Table

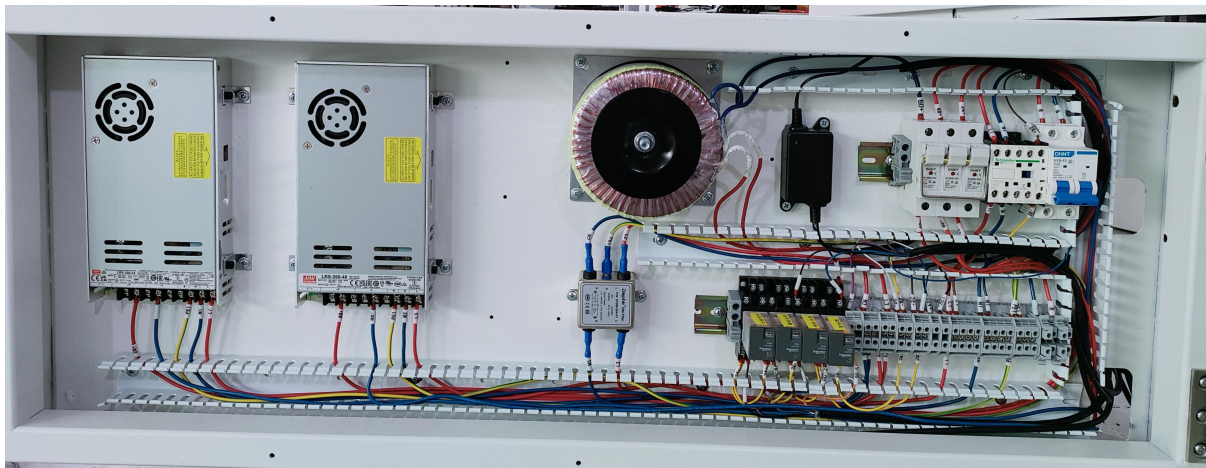
Composition: Including Z-axis lifting device (lifting base, lifting screw, lifting guide rail, motor, etc.), platform moving device (screw, guide rail and servo motors that control the movement of X, Y, and  $\theta$  directions respectively to automatically adjust the platform), etc.

Function: Through machine vision, the workbench automatically adjusts the position deviation in X, Y and  $\theta$  directions, and accurately realizes the alignment of the printing template and the PCB board.

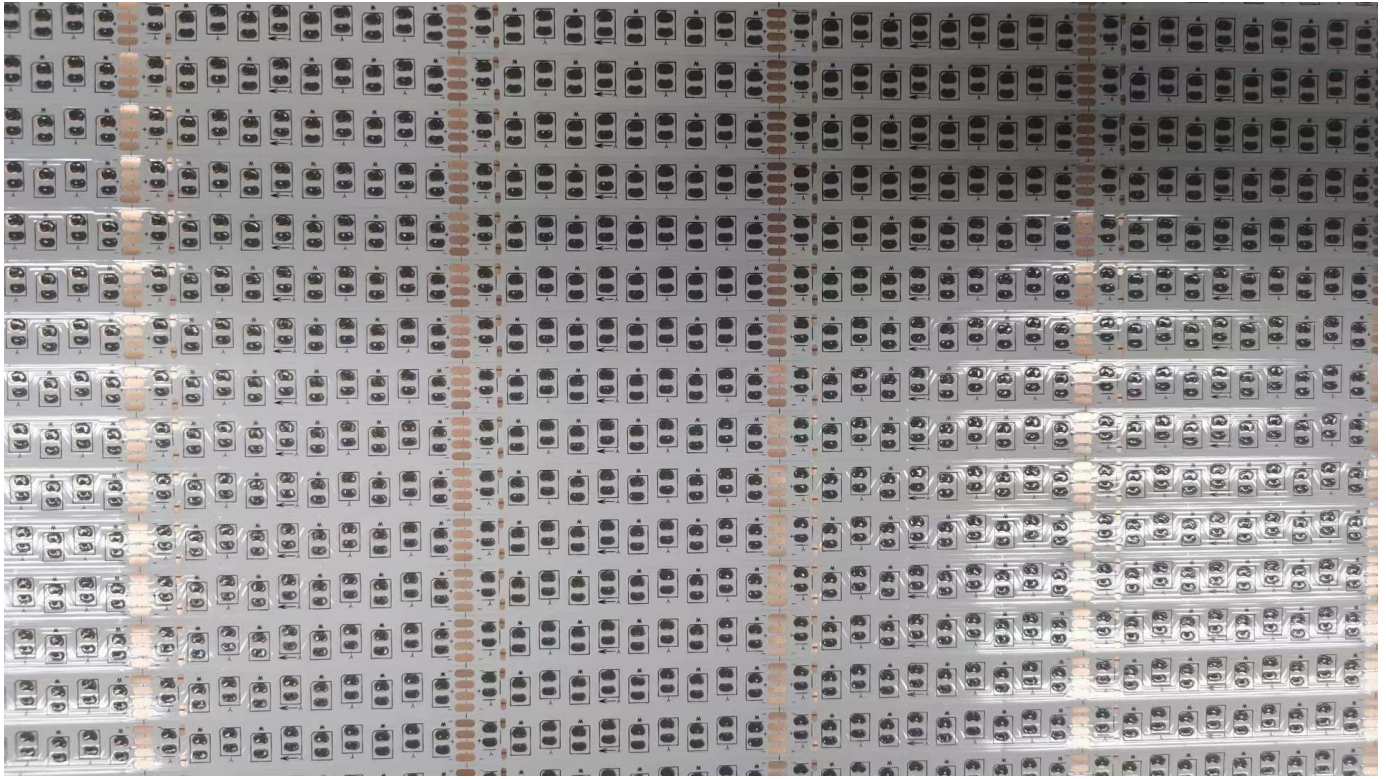


## Operational Control System

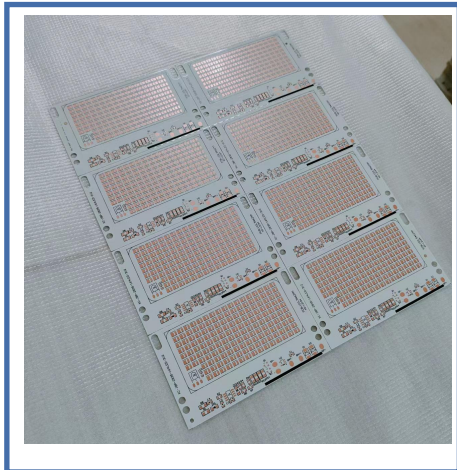
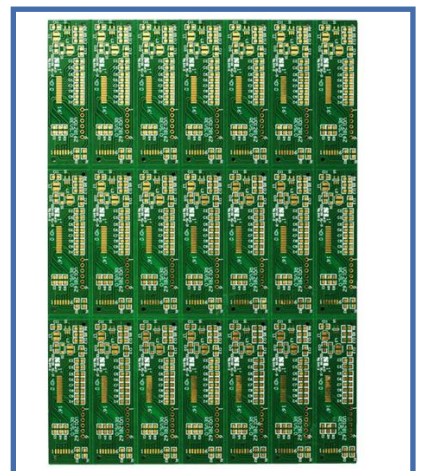
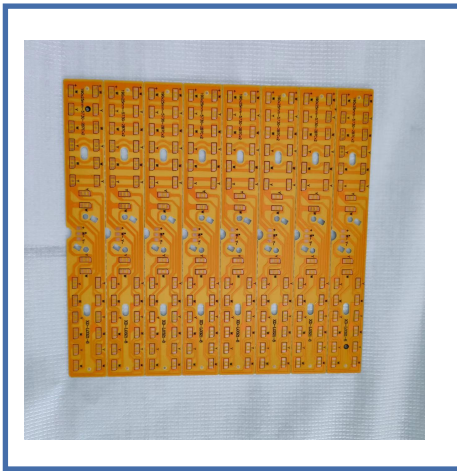
It consists of industrial computer and control software, motion control card, driver, servo motor, counter, photoelectric sensor and signal monitoring system. The intelligent advanced software control of Windows 10 operating system greatly facilitates the use of users.



# Printing Effect



## Scope of use



# Why choose us

Source manufacturer, timely after-sales service, quality assurance, punctual delivery.

## After-sale warranty

### One year warranty

All accessories of the whole machine are guaranteed within one year from the date of receipt.

### lifetime maintenance

From the date of receipt, any product quality problems will provide maintenance through, telephone communication, online guidance for replacement of accessories and by E-mail.

### installation, commissioning

Provide on-site installation and commissioning or remote assistance in installation and commissioning. If the buyer needs on-site installation and commissioning, please explain before purchasing.

### After-sales advantage

From the date of receipt, please contact our after-sales service person in time for any product quality and product use problems, and we arrange processing within 24 hours.