



# Tronstol E1



创思达精密技术  
TRONSTOL TECHNOLOGY

## Tronstol E1

E1 is a technology platform that can be customized according to your mechanical and software functions. In terms of hardware, it uses CCD laser aerial photography, which greatly improves the actual mounting speed of the machine. It also uses a grating ruler closed-loop system to improve the placement accuracy of the machine. The open source Linux system can realize multi-functional customized development.



### Characteristics/

#### Customized hardware

You can choose the machine's optional parts: electric rail, camera, mount head, automatic nozzle changer, mounting area, and etc, even the appearance and size of the machine.

#### Open software

The Linux system can meet your needs for customized software functions, and can match the placement of different application scenarios.

#### Offline programming

Through the offline software independently developed by Tronstol, you can edit files directly on the computer without occupying the machine. This greatly improves work efficiency.

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## TronStol E1 Desktop PNP machine

- Industrial-grade intelligent placement platform-
- Multifunctional and cost-effective-



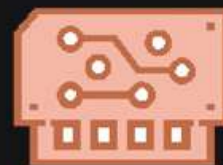
\*The picture machine model is Trosntol E1 advanced version



3D-flying camera



Grating ruler system



Industrial bus architecture



Graphical test interface



Stable Mounting 0201



Personalized customized

## Details of Desktop Pick and Place Machine TronStol E1

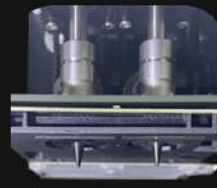
### Higher placement accuracy

XY axis custom grating ruler, the final repeat positioning accuracy is  $\pm 35\mu\text{m}$



### Faster placement speed

3D CCD fly-ing camera saves placement time



### Add auto-nozzle library changer

Solve the simultaneous placement of multiple types of components



### Improved motion accuracy

XY axis closed loop stepper motor, high-speed movement without loss of step



### Detachable feeder bank

Install the tape&reel in advance, use different feeder bank for different files, save your time of changing tape&reel installation



### 58\*8mm feeder slot

The number of feeder slot has increased, one machine can mount more components



### Dark field light source

Dark field light source + 5 million high-definition digital camera: The IC identification is clearer



### Tronstol 0201 test result

0201 Mounting Pioneer in similar products



### IPC9850-QFP100 IC accuracy test result

Use SMT industry standard test boards: Excellent accuracy test results for QFP100



### IPC9850-0603 speed test result

Use SMT industry standard test boards: Excellent speed test results for 0603



The advantages of the hardware for TronStol E1:

1. Use 3D flying camera: this can improve the speed of our machine.
2. Detachable feeder bank: you can install the reel&tape when the machine are working if you buy one more feeder bank.
3. The mechanical structure of the placement head which can accept the component height more than 24mm. Even in the Chinese market, we are the only desktop machine that can accept such a high height of component.
4. Automatic nozzle changer device: you can use six type of nozzles, it is same as you have 6 mount head (This device need purchase separately)
5. Grating ruler closed loop system: This can make sure the precision of E1.

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# E1 high-precision desktop pick and place machine



Model	Tronstol E1		
	Standard	Advanced	Flagship
Feeder Capacity	29*8mm or 21*8mm 4*12mm 2*16mm 29*8mm & 21*8mm 4*12mm 2*16mm		
Number of heads	2		
Camera	2 laser aerial cameras + 1 Mark camera + 1 IC camera		
Light source configuration	Industrial grade area array light source + Industrial grade ring light source		
Applicable Components	0201 components-26*26mm IC (Customization supported)		
XY axis motion control	Stepping servo motor + Grating ruler closed loop control		
Vibration feeder	5(Customization supported)		
Placement accuracy	±0.02mm		
Placement rotation	±180°		
Mounting area	370mm*300mm		
Mounting speed	5000CPH		
Nozzle type	CN030, CN040, CN065, CN100, CN140, CN200, CN400, etc. (Customization supported)		
Attachable components	RC (0201, 0402, 0805, 1201, 1206) QFP, QFN ,etc. LED common lamp beads, etc.		
Feeder bank	Detachable feeder bank		
Support material type	Tape&Reel/Tube/IC Tray		
Feeder type	8mm,12mm,16mm		
Operating system	Linux		
Programmatically	Computer coordinate file import/Manual coordinate file editing, Support offline programming		
Net Weight	70kgs/77kgs/90kgs		
Power	200W		
Electricity supply	AC 110V/220V		
Size	90CM*78CM*54CM		
Three-color warning light	●	●	●
CE standard safety shield	●	●	●
Built-in air source	●	●	●
External air source	○	○	○
10.1 Inch display	●	●	○
10.6 inch industrial touch display	○	○	●
Keyboard and mouse	●	●	●
Working Table of E1	○	○	●
Video Tutorial	●	●	●
Remote support	●	●	●
Electric track	All series optional		
Non-standard camera	All series optional		
Non-standard light source	All series optional		
Non-labeled head	All series optional		
Non-standard software	All series optional		

\* ○ Optional  
● Standard



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## Production line /

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Tronstol TP3040 high precise screen printing table, pick and place machine E1 and infrared IC heater MR30 desktop reflow solder those three machines are a perfect combination. This production line meets the needs of various prototypes, small batch production, R&D teams, electronic enthusiasts, etc.

Advantage:

1. The total length of the whole line is less than 2 meters, you can put it in the office, R&D room or at home.
2. This is an economical SMD assembly line, which can help you improve work efficiency and save your time.
3. The powerful software system of the placement machine can help you record production time and manage production work.

## Picture /



TP3040 stencil printer



E1 pick and place machine



MR30 reflow

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Tronstol is the one-stop SMT manufacturer and supplier