



Intelligent Manufacturing in China Innovation-Driven Development



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3D COMPUTER VISION TECH 三维



About

Black Box 3D has favorable technical personnel from the Microsoft Research Asia and the CAD team of Zhejiang University. The company is a world-leading developer of 3D machine vision system with an independent capacity of full stack development from optics to underlying algorithms. Also, it is a national-level high-tech enterprise with 120+ patents and software copyrights, including 20+ invention patents.

Black Box 3D establishes an international team and a European branch in Finland, which help sell its products in more than 30 countries. Besides, it provides 3D measurement solutions of high precision, stability and robustness for famous customers and their supporting manufacturers such as Bosch, Siemens, Philips, Audi, BMW, Mercedes-Benz, SAIC Volkswagen, Great Wall Motors, Geely, BYD Auto, Yadea, AIMA, SUNRA, Tibet Everest, Aikosolar, Chinese Academy of Sciences and Peking University, etc.

Array

Array Block Education | Array Block Beast

- Fully automatic High-precision Fine detailed
- Dual-axis/single-axis Colored/high-speed

Providing users with a complete solution of automatic 3D scanning system from calibration to editing and processing of data.

Providing users with 3D scanning data of fine details and textures.
Single-axis/dual-axis, colored/high-speed
Different versions of configurations make users accessible to various options suitable for actual application.



Technical specifications

| Model | Array Block Education | Array Block Beast |
|--|---|--|
| Scanning mode | fully automatic scanning with turntable, free scanning | fully automatic scanning of turntable, fully automatic multi-axis scanning with turntable, professional scanning |
| Splicing mode | multi-axis scanning and splicing with turntable, automatic splicing with turntable, mark point splicing, manual splicing, feature splicing | |
| Scanning precision | volumetric accuracy: 0.05mm-0.1mm | volumetric accuracy: 0.05mm; detailed accuracy: 0.05mm |
| Scanning range | Fully automatic scanning with turntable: 220x220x210mm Fully automatic multi-axis scanning with turntable: 222x222x222mm Free scanning: 740x740x740mm | Fully automatic scanning with turntable: 200x150x150mm Fully automatic multi-axis scanning with turntable: 222x222x222mm Professional scanning: 1200x1200x1200mm |
| Scanning speed | Fully automatic scanning with turntable: 2min Free scanning: 6s (single scan) | ≤ 0.6s |
| Texture scanning | 24 bit true color, texture export and import are supported, and texture segmentation, editing and modification are available | |
| Output formats | STL、ASC、OBJ、PLY、VTK、OFF、FB | |
| Sensor resolution | 2 color cameras of 3 megapixels | 2 industrial cameras of 1.3 megapixels Dot pitch |
| Dot pitch | 0.10mm-0.15mm | |
| Coding emitter | LED cold light ((Eye-safe)) | |
| Stand-off distance | 400mm | |
| Working temperature | 0°C-40°C | |
| Weight and dimensions | 1.9kg、607x240x214mm | |
| Voltage of adapter | DC 12V, 5A, 60w | |
| Maximum load bearing capacity of turntable | 5kg | |
| Recommended computer configuration | OS: Windows7 (64bit) GPU: NVIDIA GTX650 or above | CPU: intel i5 processor RAM: 4GB or above |

Product features



Ultra-thin turntable

Fully automatic scanning, intelligent splicing, one-click data output



Smooth docking

Smooth docking with 3D printing



Super dual-axis

Super dual-axis Fully automatic dual-axis turntable for 3D scanning of different dimensions and precision with one click



Fully automated

Fully automated splicing with turntable



More details

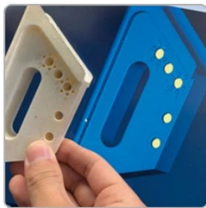
High precision makes multi-angle scanning without any omitting available



Ultra high-speed

Faster scanning saves more time

Application scenarios



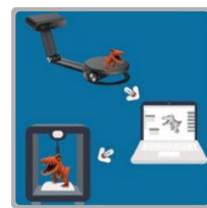
Industrial small part



Cultural relics



Designer-assisted design



3D printing



Footwear scanning



Reverse engineering



Product metrics



Product metrics



Experimental teaching



Toys and garage kits



STEAM education



3D maker education