



CANADIAN ADDITIVE
MANUFACTURING SOLUTIONS

HDI ADVANCE

ADVANCED 3D SCANNERS

Speed, Accuracy & Flexibility at an Affordable Price

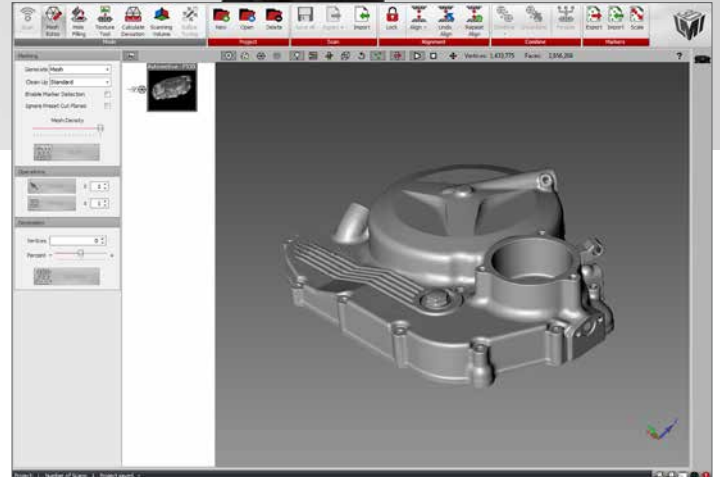
The HDI Advance 3D family of scanners captures complete digital 3D scans from physical objects in just seconds. The system is ideal for manufacturers, visual effects studios, research labs, and academic institutions that need complex 3D measurements.



HDI ADVANCE R3x



HDI ADVANCE R4x



All HDI 3D Scanners come with FlexScan3D software.

NEW! HIGH-END R4x FOR THE INDUSTRIAL METROLOGY MARKET

The HDI Advance R4x model delivers superior scanning accuracy and detail. Able to generate a single scan at up to $36\mu\text{m}$ (0.0014") accuracy and generate up to 3.2 million points (6.4 million polygons) per scan, this powerful system is ideal for industrial metrology applications such as quality control inspection.

FAST SCAN SPEED, HIGH RESOLUTION, FULL FIELD SCANNING

The HDI Advance 3D scanner uses dual machine vision cameras to capture high resolution and accurate 3D scans. With rapid scan speeds ranging between 0.88 and 1.3 seconds per scan, the HDI Advance 3D Scanner captures the full view of an object at high speed. This makes it especially useful for face and body scanning applications where the subject has difficulties staying still.

NON-CONTACT, STABLE AND RELIABLE

The HDI Advance scans an object directly without any physical contact to ensure there is zero measurement interference. In addition, features such as a carbon fibre bar on the R4x secures the scanning cameras for improved camera stability and measurement reliability.

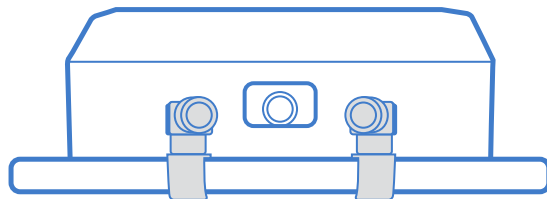
FLEXIBLE SCANNING SYSTEM

The HDI Advance 3D scanner is a flexible system that is capable of scanning objects of different shapes and sizes simply by changing its field-of-view, with convenient presets ranging from 165mm up to 676mm diagonal depending on the model. The ability to rotate the cameras on the R4x model provides fine tuning to minimize occlusions or create larger stereo angles.

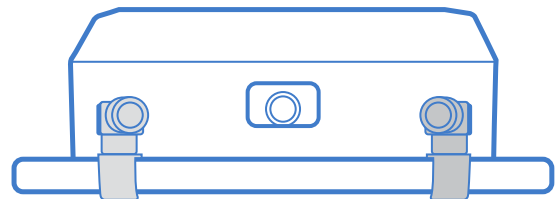
BUILT IN POST-PROCESSING CAPABILITIES WITH POWERFUL SDK

The powerful FlexScan3D scanning engine provides automatic scanning, sophisticated automatic mesh geometry alignment, interactive and automatic hole filling, automatic cut plane definitions and more. Its powerful SDK allows you to customize and script your scanning workflow.

HDI ADVANCE MODELS	R1X	R3X	R4X
Cameras	2 x 1.3 megapixel color or monochrome USB 3.0 cameras with 12mm lenses	2 x 2.8 megapixel color or monochrome USB 3.0 cameras with 12mm lenses	2 x 4.1 megapixel monochrome USB 3.0 cameras with 12mm lenses
Scan Speed	1.3 seconds per scan	0.88 seconds per scan	1.3 seconds per scan
Field of View (FOV), diagonal	165mm, 310mm, 455mm	207mm, 379mm, 647mm	5 presets, between 212mm and 676mm
Resolution			
<i>Average Points</i>	1.1 million per scan	2.6 million per scan	3.7 million per scan
<i>Average Polygons</i>	2.2 million per scan	5.2 million per scan	7.4 million per scan
<i>Point to Point Distance</i>	0.1mm at 165mm FOV 0.2mm at 310mm FOV 0.3mm at 455mm FOV	0.075mm at 200mm FOV 0.165mm at 400mm FOV 0.250mm at 600mm FOV	0.071mm at 212mm FOV 0.228mm at 676mm FOV
Accuracy	65µm (0.0026") at 165mm FOV 115µm (0.0045") at 310mm FOV 125µm (0.0049") at 455mm FOV	45µm (0.0018") at 200mm FOV 75µm (0.0030") at 400mm FOV 105µm (0.0041") at 600mm FOV	36µm (0.0014") at 212mm FOV 84µm (0.0033") at 676mm FOV
Standoff	370mm at 165mm FOV 690mm at 310mm FOV 1040mm at 455mm FOV	370mm at 200mm FOV 690mm at 400mm FOV 1040mm at 600mm FOV	385mm at 212mm FOV 1110mm at 676mm FOV
Geometry Formats	PLY, OBJ, STL, ASC, FBX, 3D3		
High-res Color Texture	Optional DSLR camera (Canon Rebel EOS series or any Nikon supported)		
Scanning Software	FlexScan3D		
Computer Requirements	Windows 7 (64-bit) Operating System, Quad-core Intel 2 GHz CPU or better, 4 GB Memory or greater, 512MB Video Card, Free disk space 250GB Hard Drive or more		



SMALLER FIELD OF VIEW
Scanning smaller objects using inner camera slots.



WIDER FIELD OF VIEW
Scanning larger objects using outer camera slots.



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