

# 3D LASER SCANNER **L PX** DS Series



Archive fine arts  
and use in education



Scan dental casts for research and  
to reduce storage requirements

Capture existing shapes  
as basis for new designs  
Requires optional software Pixform ProII or  
equivalent to convert scan data to surfaces.



SCAN

## 3D Scanning at the Touch of a Button

Use original work for  
new product designs



Images provided by Saga Co. Ltd.

Give life to clay models  
with CGI/Animation



## The easy way to capture 3D data from physical objects

### Easy high-resolution 3D scanning out of the box

The LPX 3D scanners are compact and enclosed, producing high-resolution digital data with a non-contact red laser and high quality optics to capture parts. Simply place objects in the LPX user area, close the door and press the scanner button to generate 3D data. With USB connection to PC and automated software installation, scanning can start straight from the box.

### Precision 3D scanning at the touch of a button with included software

One-touch automated scanning with Roland LPX EZ Studio™ software controls the entire process from the initial scan to the creation of 3D CAD/CG data.



Roland LPX EZ Studio

Roland's Dr. PICZA 3™ software enables full user control of both rotary and indexed scanning features for objects with complex forms and undercuts.

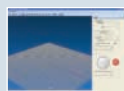


Dr. PICZA 3

### Roland LPX EZ Studio™ — the one button solution



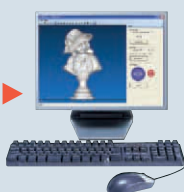
**1** Position your object on the LPX scanner work table



**2** Press the 'Preview' button to confirm scanning time



**3** Press the 'Scan' button to begin scanning



**3D LASER SCANNER**  
**L PX-600 DS**  
Compact and most affordable

**3D LASER SCANNER**  
**L PX-600 DS**  
Large, versatile scanning capacity

**3D LASER SCANNER**  
**L PX-1200 DS**  
High resolution detailed scanning

## ■ Specifications

		LPX-60DS	LPX-600DS	LPX-1200DS
Table size		Diameter 203.2 mm (8 in.)	Diameter 254 mm (10 in.)	Diameter 130 mm (5 in.)
Maximum scanning area	Plane scanning	Width 203.2 mm (8 in.), height 304.8 mm (12 in.)	Width 254 mm (10 in.), height 406.4 mm (16 in.)	Width 130 mm (5 in.), height 203.2 mm (8 in.)
	Rotary scanning	Diameter 203.2 mm (8 in.), height 304.8 mm (12 in.)	Diameter 254 mm (10 in.), height 406.4 mm (16 in.)	Diameter 130 mm (5 in.), height 203.2 mm (8 in.)
Scanning pitch	Plane scanning	Width direction 0.2 to 203.2 mm, height direction 0.2 to 304.8 mm	Width direction 0.2 to 254 mm, height direction 0.2 to 406.4 mm	Width direction 0.1 to 130 mm, height direction 0.1 to 203.2 mm
	Rotary scanning	Circumference 0.2 to 3.6 degrees, height direction 0.2 to 304.8 mm	Circumference 0.18 to 3.6 degrees, height direction 0.2 to 406.4 mm	Circumference 0.18 to 3.6 degrees, height direction 0.1 to 203.2 mm
Repeat accuracy		±0.1 mm (This figure reflects standard scanning conditions established by Roland DG.)	±0.05 mm (This figure reflects standard scanning conditions established by Roland DG.)	±0.05 mm (This figure reflects standard scanning conditions established by Roland DG.)
Maximum table load weight		5 kg (11 lbs.)		
Laser	Wavelength	645 to 660 nm		
	Maximum output	Less than 390 μW (maximum output of the laser light emitted inside housing is 5 mW)		
Sensor		Noncontact laser sensor		
Scanning method		Spot-beam triangulation		
Operating speed	Table rotation speed	10.06 rpm	9 rpm	9 rpm
	Head rotation speed	4.98 rpm	4.48 rpm	4.48 rpm
	Maximum head movement speed	50 mm/sec.	37 mm/sec.	7.58 mm/sec.
Interface		USB (compliant with Universal Serial Bus Specification Revision 1.1)		
Power supply	Dedicated AC adapter	AC 100 to 240 V ±10 % 50/60 Hz 1.5 A		
	Input/Output	DC 19 V, 2.1 A		
Power consumption		Approx. 20 W (including AC adapter)		
Dimensions		500 [W] x 382 [D] x 619 [H] mm (19-11/16 [W] x 15-1/16 [D] x 24-3/8 [H] in.)	630 [W] x 506 [D] x 761 [H] mm (24-13/16 [W] x 19-15/16 [D] x 29-15/16 [H] in.)	443 [W] x 396 [D] x 609 [H] mm (17-7/16 [W] x 15-9/16 [D] x 24 [H] in.)
Weight		32 kg (71 lbs.)	63 kg (139 lbs.)	35 kg (78 lbs.)
Environment	Temperature	10 to 40 °C (50 to 104 °F) (25 °C [77 °F] or more recommended)		
	Humidity	35 to 80 % (no condensation)		
Included items		AC adapter, power cord, AC adapter holder, cable clamps, USB cable, CD-ROM, clay, user's manual, Roland LPX EZ Studio	AC adapter, power cord, AC adapter holder, cable clamps, USB cable, CD-ROM, clay, user's manual, Roland LPX EZ Studio	AC adapter, power cord, CD-ROM, clay, user's manual, Roland LPX EZ Studio

\* Never use a USB hub or the like.

## ■ Roland LPX EZ Studio and Dr. PICZA 3 Specifications and System Requirements

Specifications	
Saving file format	EZ Studio: STL (Stereolithography), GSF (Geometry Systems native file format), 3DM (Rhinoceros file format) and PIX (Roland Picza format). Dr. PICZA 3: STL, 3D-DXF, Polyline, Point Cloud and PIX.
System Requirements	
Operating system	Windows Vista® (32-bit edition), Windows® XP (SP2 or later) or Windows® 2000 (SP4 or later)
CPU	Intel® Pentium®4 2.4 GHz or faster recommended
RAM	512 MB or more recommended 1 GB or more recommended for Windows Vista®
Display/Graphic Card	EZ Studio: 1,024 x 768 resolution and 16-bit colors (High color) or more recommended (video card compatible with OpenGL 1.4 recommended) Dr. PICZA 3: 800 x 600 resolution and 16-bit colors (High color) or more recommended (OpenGL-compatible accelerator board recommended)
Free hard-disk space for installation	EZ Studio: 100 MB or more Dr. PICZA 3: 20 MB or more

## ■ Optionally Available Software Pixform® Proll

### Revolutionary advances in reverse engineering software will change the way you work

Pixform® Proll software is reverse engineering software that converts scanned data into editable high quality parametric solid and surface CAD compatible models. Features user friendly interface similar to major CAD applications.

**Pixform® Proll**



Powered by **RAPIDFORM** Technology

## ■ System Requirements for Optionally Available Software Pixform® Proll

Operating system	Windows Vista® Ultimate/Business/Home Premium/Home Basic (Service Pack 1, 32-bit or 64-bit edition), or Windows® XP Professional (Service Pack 2 or x64 Edition)/Home Edition (Service Pack 2)
CPU	Intel® : 3.0 GHz dual-core or above recommended, AMD: Athlon™ 64 dual-core or above recommended
RAM	2 GB recommended
Display	1,280 x 1,024 resolution recommended, 32-bit true color required
Graphic card*	OpenGL 2.0, NVIDIA GeForce 6600 or above, or ATI Radeon X1650 or above recommended
Free hard-disk space for installation	10 GB or more recommended

\*For more information about certified graphic cards, please refer to the LPX-DS specifications listed on the Roland DG web site, [www.rolanddg.com](http://www.rolanddg.com).

### About scanned objects:

LPX 3D scanner scans objects using a laser light beam. Scan quality may vary depending on the materials or colors of the objects. The LPX 3D scanner cannot scan around the top of an object where the laser beam either hits at too shallow an angle or cannot hit the object at all.

Objects that are transparent, translucent, or have surfaces which are fuzzy, glossy, or highly reflective, made of fabric, or of dark colors such as black, blue, or green, may not produce good results. In these instances, using a white matte-finish coating or other temporary surfacing agent is required.

## ISO 14001:2004 and ISO 9001:2008 Certified

Roland pursues both environmental protection and continuous quality improvement. Under the philosophy of preserving the environment and human health, Roland is actively working to abolish organic solvents in production, to reduce and recycle waste, to reduce power use, and to purchase recycled products. Roland constantly strives to provide the most highly reliable products available.



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