

Overview

The BIO | DS 3D scanner can convert physical dental models into 3D CAD files. The unit is low cost, portable, and easy to set up.

Model Types

- Impression moulds
- Stone cast models and dies.
- Articulated stone cast models.
- 360° Denture scanning.

Accuracy

- Scan repeatability: $\pm 20\mu\text{m}$
- Improved sharpness and cross arch accuracy over version 2.
- Mesh density: approx. 0.25mm per dot.
- Operating temperature: $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$

Scan time (typical):

- 1m 40s per stone cast
- 2m 20s per impression
- 3m 40s per denture.
- 5m per triple tray.

Hardware features

- 2 axis rotation stage.
- Scan volume: 80mm x 80mm x 60mm.
- Structured light projection with 2 x 8MP cameras.
- Dimensions (l w h): 24.6 x 25.8 x 22.5 cm (approx. 10" x 10" x 9")
- Weight (scanner only): <3.5 kg
- Storage temperature: 5°C to 60°C
- Operational in ambient lighting up to 1500 lux.

Software Control

- Automatic calibration.
- Output formats: PLY, OBJ (color), and STL.
- Automatic double sided capture of triple trays.
- Automatic alignment of upper and lower stone casts from an alignment scan.
- Optional shadow filling by adding extra scans from any viewpoint.
- Automatic mesh cleaning, hole filling, compression, and floating noise removal.

Minimum PC requirements

- Windows 10.
- 8 GB ram.
- 1280x720 screen.
- A graphics card that supports OpenGL 3.1

Note: Mac with "Windows Parallels" is not sufficient.

Power supply:

- Input Voltage: AC 110V – 240V, 50/60Hz, converted to 24V 3A 2.5mm DC jack.
- Converter supplied with UK, US, or EU plug.
- Power consumption: 40W typical.