

BTM one

INDUSTRIAL 3D SCANNER



Precision Quality Control with Bluelynes® Technology

IDloop's **BTM one** | Designed for versatility, our industrial 3D scanner is the perfect solution for surface inspection, reverse engineering, inline and offline quality control, position control, and scratch and dent analysis. Whether ensuring flawless product surfaces, capturing precise 3D models for redesign, or detecting the smallest defects in manufacturing, **BTM one** delivers unmatched accuracy and speed. This system is ideal for industries where precision is critical, including aerospace, automotive, electronics, and advanced manufacturing.

- ✓ COMPACT AND MODULAR (152 MM X 152 MM X 175 MM)
- ✓ RAPID, HIGH-ACCURACY SCANNING (6 MM DEPTH RESOLUTION)
- ✓ LARGE MEASUREMENT AREA (81.3 MM X 76.2 MM)

BTM one Technical Data

DATA ACQUISITION

Principle	Structured light
Light Source	Blue LED
Middle Field of View	81.3 mm x 76.2 mm
Measurement Range in z-Direction	40 mm
Standoff Distance	27 mm from the highest point of device 73 mm from glass measurement area
Depth Resolution (z)	6 μm
Point-to-Point Distance (x,y)	33 μm
Max. Points per 3D point cloud	8.1 M
Data Acquisition Time	0.1 s to 2.1 s, depending on scan mode
3D data Export	~ 1 s

HARDWARE

Ingress Protection	IP54
Operating Conditions	Temperature: -10 °C to 55 °C Humidity: 10 % to 80 % (non-condensing)
Storage Temperature	-40 °C to 80 °C
Dimensions (W x D x H)	152 mm x 152 mm x 175 mm
Weight	2.55 kg
Scanner Interface	USB 3.0
Power Supply	12 V DC, 5 A, External power supply

SOFTWARE

Supported Operating System	Windows 10/11 (64-bit)
Software	BTM Capture including Python API
Data Output	3D data as point cloud (.ply or .txt), x,y,z-map, Gridded Depthmap (as .tiff or .exr), 2D grayscale image (as .png)
Data Processing	Definition of ROI/mask, minimum/maximum filtering and standard deviation-based filtering, reprojection onto a best-fit reference plane for predominantly planar targets
SDK	C++



Scope of Delivery

- BTM one 3D Scanning Device
- Power Supply
- USB cable
- BTM Capture app

Additional Options

- Cover designed to ensure accurate measurement at the correct working distance
- Individual sample platforms and customized analysis tools upon request

