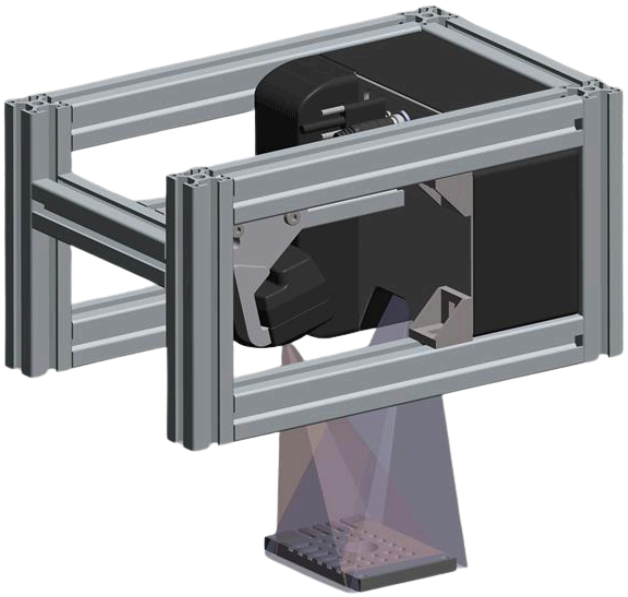
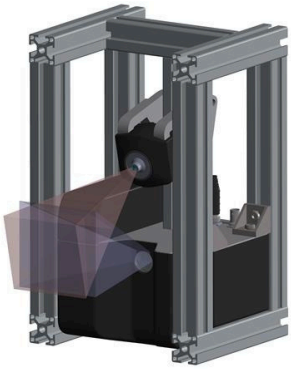
IDloop®

BTM flex

CUSTOMIZABLE INDUSTRIAL 3D SCANNER





Precision Meets Total Customization with Bluelynes® Technology

IDloop's **BTM flex** | Designed for versatility, our industrial 3D scanner is the perfect solution for surface inspection, reverse engineering, 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 flex** delivers unmatched accuracy and speed. This system is ideal for industries where precision is critical, including aerospace, automotive, electronics, and advanced manufacturing.

- **FLEXIBLE MEASUREMENT VOLUME**
- **RAPID, HIGH-ACCURACY SCANNING**
- **EXTERNAL TRIGGER**

BTM flex Technical Data

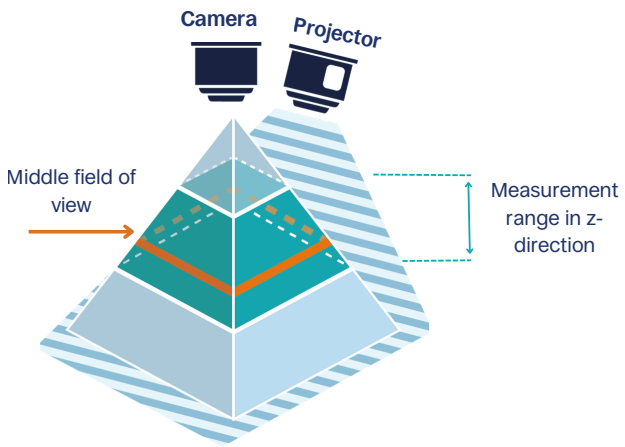
GENERAL PRODUCT INFOMATION

Principle	Structured light
Ingress Protection	IP40
Operating Conditions	Temperature: 15 °C to 40 °C Humidity: 10 % to 80 % (non-condensing)
Storage Temperature	-40 °C to 80 °C
Scanner Interface	USB 3.0
Power Supply	12 V DC, 5 A, External power supply
External Trigger	Opto-isolated trigger input (3-pin), low latency (<10 µs), noise-immune & system-safe
Supported Operating System	Windows 10/11 (64-bit)
Software	BTM Capture including Python API
Data Output	3D data as point cloud, x,y,z-map, Gridded Depthmap, 2D grayscale image
SDK	BTM C++

CUSTOMIZE YOUR BTM flex

Light Source	RGB LED
Points per 3D point cloud	Up to 8.1 M
Data Acquisition Time	0.1 s to 2.1 s, depending on scan mode

	HIGH ACCURACY	DEMO	LARGE FIELD
Middle Field of View	25 mm x 25 mm	90 mm x 90 mm	1300 mm x 1300 mm
Measurement Range in z-Direction	5 mm	40 mm	500 mm
Working Distance	100 mm	185 mm	3000 mm
Standoff Distance	85 mm	170 mm	2985 mm
Depth Resolution (z)	1 µm	6 µm	1 mm
Point-to-Point Distance (x,y)	10 µm	33 µm	500 µm



Additional Options

- Mounting frame to ensure accurate measurement at the correct working distance.
- Individual sample platforms and customized analysis tools upon request.

Scope of Delivery

- BTM flex 3D Scanning Device
- Power Supply
- USB Cable
- BTM Capture app

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BTM-flex