



- 1 Sensor head.
- 2 Technical object.
- 3 Dynamic 3D measurement.

REAL-TIME HIGH-RESOLUTION 3D SCANNER

Measurement Principle

- Triangulation-based 3D measurement system with active illumination
- High-speed projection of aperiodic sinusoidal fringe patterns
- Synchronous image acquisition of two high-speed cameras and one color camera

Features

- Eye-safe due to incoherent projection
- Spatial measurement of dynamic scenes
- Real-time computation of high-resolution 3D point clouds with color information
- Comparison with reference models (CAD)
- Further processing with established 3D analysis tools (e. g. HALCON)

Exemplary Applications

- Real-time measurement for quality assurance
- Pick and place applications
- Security technology in public space
- Detection of people's poses, gestures, or facial expressions for human-machine interaction
- Interactive training systems
- Car interior monitoring
- Production and assembly monitoring on versatile objects

System Parameters

- Sensor size: 300 x 190 x 100 mm³
- Measurement field: 400 x 400 mm²
- Optical power: ~4.5 W
- Measurement distance: 1500 mm (flexible)
- Pattern projection rate: 360 Hz
- 3D frame rate: 36 Hz

Our Offer

- Realization of custom-specific high-speed 3D measurement systems
- Execution of various 3D measurement tasks

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