

# FRAUNHOFER INSTITUTE FOR APPLIED OPTICS AND PRECISION ENGINEERING IOF



- 1 kolibri CORDLESS.
- 2 kolibri MULTI.
- 3 kolibri ROBOT.
- 4 kolibri 1500.

# Fraunhofer Institute for Applied Optics and Precision Engineering IOF

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# SELFCALIBRATING MULTI-VIEW 3D-MEASUREMENT SYSTEMS SYSTEM FAMILY kolibri

#### Measurement principle

- Fringe projection from different directions with two fringe sequences rotated by 90° to each other
- Automatic full body measurement while using simultaneous active moving sensors and fixed cameras

#### Features

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- No use of adhesive markers or matching procedures
- Self calibration of the measurement system, compensation of environmental effects
- Measurement range: 10 mm up to 5 m
- Number of views: unrestricted
- Measurment uncertainty:

0.5 μm ... 150 μm

- Measuremt time: 0.2s 10 min (dependent on the measurement setup)
- Automatic measurement
- Mobile and stationary system solutions

### Our Offer

- Development and delivery of measurement systems according to the client specification
- System development for quality inspection, rapid prototyping, reverse engineering, 3D-scanning, medicine, virtual reality and further
- Integration in industrial processes
- Measurement services
- Studies and consultation

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# Systems

- kolibri CORDLESS optical hand-held cordless 3D-sensor
- kolibri MULTI optical 3D-multi-sensorsystem with variable resolution
- kolibri ROBOT robot-mounted 3D-sensor
- kolibri 1500 automatic selfcalibrating
  3D-measurement system for large objects