



## Overview

Product name	iQ-Depth Calibrator
Principle	Fixed orthogonal alignment of a motorized bench and a homogeneous chart with defined reflection for depth map calibration. All metal parts in the camera's field of view can be covered with light absorbing material for low light reflections. To isolate the iQ-Depth Calibrator from its surroundings, a full housing is available. An optional chart with suspended objects, which are made of different materials and shapes, is available.

## Features

### Bench

Movement range	3000 mm, custom specification on request, minimum 1000 mm
Min. distance to chart	400 mm
Length	3730 mm (movement range + 730 mm)
Motorization	<input type="checkbox"/> yes (iQ-Bench-M) <input type="checkbox"/> no (iQ-Bench)
Motor type <sup>1</sup>	400W EC Motor
Velocity <sup>1</sup>	max 1 m/s
Accuracy/Moving resolution <sup>1</sup>	1 mm
Acceleration <sup>1</sup>	max 2.5 m/s <sup>2</sup>
DUT <sup>2</sup> Mounting	board with raster drills for M5/M6 <b>Optional:</b> 3-way-panhed, iQ-Mobilemount or custom solution
Specialties	<ul style="list-style-type: none"> <li>• Includes emergency stop switches</li> <li>• Set up by Image Engineering or trained Premium Reseller for iQ-Bench-M is mandatory</li> </ul>

<sup>1</sup> Only applicable for motorized version (iQ-Bench-M), specifications with respect to device under test (DUT) requirements; DUT with different specifications may be usable depending on required acceleration, speed, oscillations, etc.

<sup>2</sup> DUT – device under test



## Chart

Size	2 m x 2 m
Flatness	+/- 3 mm
Reflectivity	Uniform flat field: >90% (500 nm – 1000 nm) <b>Optional:</b> test chart with various objects of different shapes, materials, reflectivity (18%, 55%) on request

## Environment (optional)

Linear stage housing	All construction parts within DUT's field of view are covered with EPDM to avoid reflections <5% (500 nm – 1000 nm)
Full housing	Covers and isolates the iQ-Depth Calibrator including the test chart and bench from surroundings (individual concept and calculation available at request)

## Software (API)<sup>1</sup>

System requirements	PC with Windows 7 operating system (or higher) USB port
Functions	<ul style="list-style-type: none"> <li>• setting position, velocity, acceleration and deceleration parameters</li> <li>• homing function to calibrate iQ-Bench-M</li> </ul>
API (C++)	iQ-Drive API

## Software iQ-Automator (not included)

System requirements	<ul style="list-style-type: none"> <li>• PC with Windows 7 operating system (or higher)</li> <li>• USB port</li> <li>• Ethernet port or WiFi</li> </ul>
Functions	<ul style="list-style-type: none"> <li>• Creating workflows for automated testing sequences</li> <li>• Positioning and aligning the DUT</li> <li>• Capturing images and transferring them to the PC (DUT dependent)</li> </ul>

## General description of hardware

Power supply / consumption <sup>1</sup>	110 V / 230 V, 600 W
Ports <sup>1</sup>	1 x USB (electronic cabinet) 1 x IEC-60320 C13/C14 power adaptor (electronic cabinet)
Dimension [W x H, length]	iQ-Depth Calibrator: 900 x 550 mm, 3730 mm (without camera mounting)
Working height	500 mm – 1000 mm (vertical variable mount)
Connection to chart frame	no
Connection to basement	Recommended, but optional
Operating conditions <sup>1</sup>	15 - 30 degrees Celsius, indoor use only

## Requirements on device under test (DUT)

Max. test device weight <sup>1</sup>	1000 g
Max. dimensions	Not limited