



## Overview

Product name	iQ-Depth Calibrator
Principle	<p>It is a fixed orthogonal alignment of a motorized bench and a homogeneous chart with a 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. Full housing is available to isolate the iQ-Depth Calibrator from its surroundings.</p> <p>An optional chart with suspended objects, which are made of different materials and shapes, is available.</p>

## 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>	400 W 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 Optional: 3-way-pan head, 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 a trained Premium Reseller for iQ-Bench-M is mandatory</li> </ul>

<sup>1</sup> Only applicable for motorized version (iQ-Bench-M), specifications concerning 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) Optional: test chart with various objects of different shapes, materials, and 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 °C, indoor use only

## Requirements of the device under test (DUT)

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