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INDUSTRIAL PRODUCT DATASHEET

RealSense Depth Camera D405

RealSense Depth Camera D405: a compact, golf-ball-sized 3D camera with sub-millimeter close-range accuracy, global shutter, and ISP-matched RGB for applications in medical, manufacturing, agriculture, and close-range robotics.

SKU	UPDATED	PRICE
100000540	2026-11-11 09:23:04	$419.99(Excl. VAT)



Overview



The RealSense Depth Camera D405 provides sub-millimeter depth accuracy at an ideal range of 7 cm to 50 cm, with global shutter sensors, ISP-matched RGB and depth, and a compact 42 mm × 42 mm × 23 mm, 60 g design. It is fully supported by Intel RealSense SDK 2.0 across Windows, Linux, Android, and macOS, and is suited for high-precision tasks in medical wound management, manufacturing inspection, agricultural robotic harvesting, and close-range robotics.

Key Features

01 **Sub-millimeter Accuracy**

Operates at an ideal range of 7 cm to 50 cm with minimum object detection down to <0.1 mm for defects and <1 mm for objects at 7 cm, making it perfect for high-precision tasks.

02 **RGB via ISP**

Uses an image signal processor (ISP) to enhance data from the depth sensors, allowing for perfectly matched RGB and depth data without the parallax errors associated with a dedicated RGB sensor.

03 **Global Shutter**

Equipped with global shutter sensors to capture high-speed movements without distortion, ensuring reliable performance in dynamic environments.

04 **Small & Lightweight**

At just 42 mm × 42 mm × 23 mm and 60 g, smaller than a golf ball, it is designed for tight integration into robotic arms and compact devices.

05 **SDK 2.0 Support**

Fully compatible with the cross-platform Intel RealSense SDK 2.0, supporting Windows, Linux, Android, and macOS with wrappers for Python, ROS, C/C++, and C#.

Product Gallery















Applications

- **Medical & Healthcare (Wound Management):** The close-range accuracy allows for non-contact, complete 3D measurement of wounds in seconds, helping doctors track healing progress more effectively than traditional methods.
- **Manufacturing & Inspection:** With defect detection accuracy as good as 0.1mm, the D405 enables automated quality control and high-precision pick and place for small objects.
- **Agriculture (Robotic Harvesting):** Provides accurate measurement and placement data, allowing robotic arms to gently pick fragile fruits and vegetables without damage.
- **Close-Range Robotics:** Ideal for end-of-arm tooling where high-resolution depth and RGB data are required at very short distances for manipulation tasks.

Resource Links

- https://www.seeedstudio.com/RealSense-D405-3D-Camera-p-6758.html
- SDK
- Code Samples
- ROS Wrapper

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