

# RealSense Depth Camera D585 Pro

## The AI-Native Depth Camera for Robotics and Industrial Automation

### Built on Gen 5. Designed to Improve Over Time

The RealSense™ Depth Camera D585 is an AI-native depth camera powered by the new RealSense™ Vision Processor V5. Combining advanced depth sensing, edge AI acceleration, and a software-defined architecture, the D585 is designed to meet the evolving perception needs of robotics and Physical AI applications. Built to improve over time through SDK-delivered capabilities, it provides a powerful foundation for intelligent machines to safely navigate, understand, and interact with the physical world.

### From Manipulation to Navigation

Designed for humanoid robots, autonomous mobile robots (AMRs), collaborative arms, industrial robotics, and inspection systems, the D585 spans the full robotics perception stack from close-range manipulation and inspection to long-range navigation and environmental awareness. With 2.5x better close-range performance than competing solutions, dual RGB and depth streaming, built-in IR filtering, hardware synchronization, and IP65 protection as standard, the D585 simplifies system design while delivering reliable perception across indoor and outdoor environments.

### AI-Native and Software-Defined

Built on a new Gen 5 architecture, the D585 brings AI processing directly onto the camera through dedicated on-device acceleration. Designed as a software-defined platform, it gains new perception capabilities over time through SDK-delivered updates, extending platform value without requiring new hardware. Supported by the open, cross-platform RealSense™ SDK 2.0, the D585 enables developers to deploy once and continuously expand functionality through software.



### Specifications

<b>Use Environment:</b>	Indoor/Outdoor
<b>IP Grade:</b>	IP65
<b>Depth Technology:</b>	Active Stereo
<b>Image Sensor Technology:</b>	Global Shutter; 3 μm x 3 μm pixel size
<b>Depth Field of View (FOV) H x V:</b>	120° x 100° (±1°)
<b>Depth Output Resolution &amp; Frame Rate:</b>	Up to 1280 x 960 Up to 90 FPS (480p)
<b>Minimum Depth Distance (Min-Z):</b>	< 15cm
<b>Ideal Range:</b>	10m+ *
<b>RGB Resolution: Dual RGB Support:</b>	Up to 1280 x 960. Up to 60 FPS Up to 1280 x 960. Up to 30 FPS
<b>RGB Field of View (FOV) H x V</b>	120° x 100° (±1°)
<b>Camera Module:</b>	RealSense Module D580
<b>Vision Processor Board:</b>	RealSense V5 SoC
<b>Interface:</b>	FAKRA (GMSL2) & USB-C 3
<b>Form Factor:</b>	Camera Peripheral
<b>Length x Height x Depth:</b>	130 mm x 40 mm x 40 mm