

※Product Name: (3D Stereo-Vision & Depth-Sensing Camera)

※Product model: G100+



※Product Description :

G100+ is a high-performance, highly cost-effective HD 3D stereo vision & depth-sensing camera. It adopts a global shutter RGB+IR process and fuses multi-sensor data to capture infrared light reflections from object surfaces. Through algorithms, it generates 3D spatial information and calculates disparity to output 3D data such as speckle patterns, point cloud maps, and depth maps, enabling 3D environment perception and depth values. It supports modifying the corresponding distance selection range in the code to obtain point clouds at specific distances. The product dimensions are 99.55 mm × 27.40 mm × 29.15 mm. It features high-speed global shutter, a resolution of 1280 × 720P @ 60 FPS, a depth infrared 850 ± 10 nm waveband, and ultra-low power consumption of 2.0 W. Its accuracy can reach < ±2.5% @ 100 cm, its depth working distance can reach 5 m, and its optimal distance is 25–200 cm. Its functions and performance can serve as an alternative to the Intel RealSense D435i. This camera uses USB 3.2 Gen1 Type-C output for convenient connection to smart motherboards. It provides ROS/Android-SDK/Linux-SDK/Windows-SDK and other systems, along with comprehensive technical support.



※Product Specifications

Models & Specifications	G100+		
长宽高 (L*W*H)	99.55mmx27.40mmx29.15mm	Weight	137g
Output Interfaces	USB 3.2 Gen 1 Type-C	Accuracy	1< ±2.5% @ 100cm
Shutter mode	Global shutter	Resolution	1280x720P @ 60FPS
Optimal working distance	25cm-200cm	Spectral band	850 ± 10 nm
Horizontal FOV	720P: HFOV: 95° ± 3° VGA: HFOV: 80° ± 3°	Vertical FOV	720P: VFOV: 63° ± 3° VGA:VFOV: 63° ± 3°
Power consumption	2.0W	Baseline	60mm
Technical Support	Technical Support for Android-SDK/Linux-SDK/Windows-SDK/ROS-SDK and Image Tuning		

※Product Features

- **Technology:** RGB+IR fusion process with built-in laser and depth algorithm (non-structured light); simultaneous output of RGB images, depth maps, speckle patterns, and point clouds.

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—Product Introduction

- **Shutter options:** Global shutter effectively suppresses motion artifacts, making it ideal for high-speed scenarios.
- **Ranging performance:** Detection range from 25 cm to 200 cm, with accuracy up to 1% (multi-baseline design).
- **Environmental durability:** IP67 dustproof and waterproof rating; suitable for outdoor, dusty, and other harsh operating conditions.
- **Interfaces & software:** USB3.2 Gen1 Type-C; full-platform SDK support for Android, Linux, Windows, and ROS, with fine-tuning capabilities for image parameters.
- **Flexible customization:** Multiple models available (differing in resolution, field of view, and power consumption); supports project-level deep customization and development.

※ Speckle, depth, and point cloud visualization:



※ Typical Applications

It is widely used in size-constrained AI products—such as AGV robotic arms, logistics robots, commercial robots, robotic lawn mowers, service robots, snow-removal robots, embodied robots, autonomous sweepers, and unmanned logistics vehicles—for 3D object recognition, obstacle avoidance, 3D spatial perception, and spatial path planning.

Object recognition and grasping for collaborative robots, dexterous hands, and automated equipment.

Gesture-based motion-sensing interaction devices, 3D volume measurement.



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Classic Application Scenarios of Main Control

Model training examples, quickly grasp the capabilities of Nodehub, and reduce effort while improving efficiency in robotw Robot



Visual line following
Obstacle avoidance Demo



Indoor Service Robot



Industrial Robotic Arm



ROS2 Educational Robot



Lawn Mower Developer Kit



Floor Cleaning Robot

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