

Fast, Flexible, Precise 3D Imaging

The Ajile DepthScan 3D imaging system is the ideal solution for machine vision and metrology applications. Fast and accurate across a wide working range, the system's flexibility meets the needs of a wide variety of industrial, and scientific applications.

Key Features

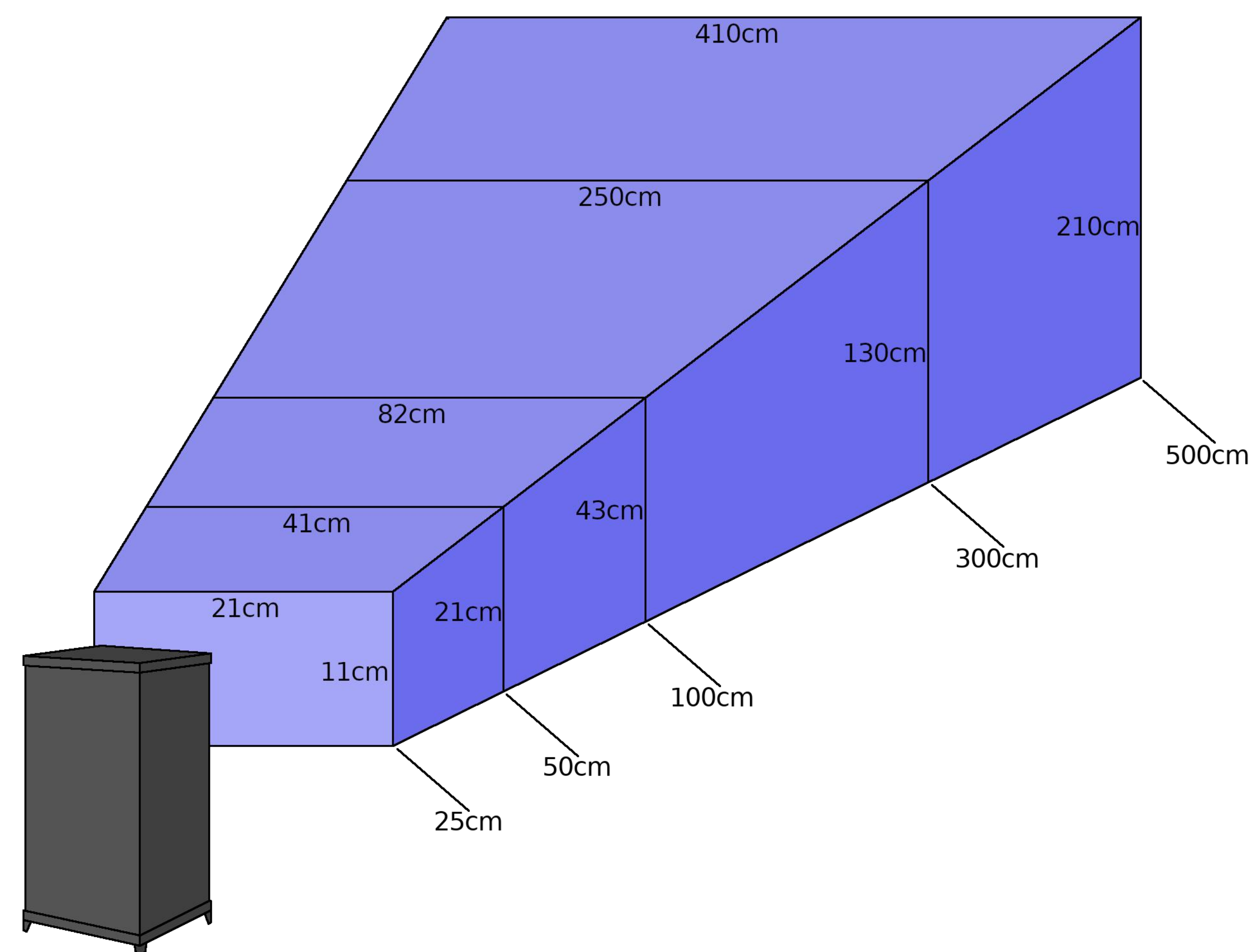
- Area scan snapshot 3D imaging system
- Designed for machine vision applications such as:
 - Robotic guidance for pick and place
 - Industrial inspection and metrology
- Depth accuracy better than 100 microns
- GPU and FPGA processing for real-time output
- Maintains spatial resolution over entire working range
- Captures 4 million color points in 250 ms with full accuracy
- Factory calibrated to a wide working range (from 25 cm to 500 cm)
- Flexibility in speed and accuracy for up to 30 color 3D images per second
- High brightness LEDs provide improved depth of field and tolerance to ambient light



System Details

Scanning

Scanning Method	Structured Light Area Scan Configurable pattern options available
Scan Rate	2.5 Hz at maximum accuracy and resolution Up to 30 Hz at lower resolution
Working Range	25 cm - 500 cm
Field of View	11 x 21 cm to 210 x 410 cm
Depth (Z) Resolution	50 μ m or better at 25 cm working distance
Spatial (XY) Resolution	60 x 120 μ m at 25 cm working distance
Scan Output	1824 x 2280 (~4 MP) color point cloud



Specifications

Pattern Generator	DMD Projector with Ajile Controller
Camera	4 MP CMOS Sensor with Ajile Controller
Interface	USB 3.0
External Triggers	Configurable 5 V Input and Output Triggers
Power Requirement	15 V, 9.6 A
Operating Conditions	Up to 40°C ambient
Weight	2.5 kg
Dimensions	23.3 cm x 11.1 cm x 10.8 cm (H x D x W)
Clearance	5 cm top and bottom
Light Source	High-powered RGB LED lighting Over 700 lumens optical output
Cooling	Active fan cooling for 100% duty cycle

Tools

Calibration	Factory calibrated for entire working range
Software	GUI for 3D capture and measurement Point cloud capture and processing SDK with Python and C++ support, for Windows and Linux
Documentation	Comprehensive documentation and SDK examples
Measurement	Ajile measurement toolkit available Compatible with 3 rd party software tools
Support	Commercial support provided Software customization available

