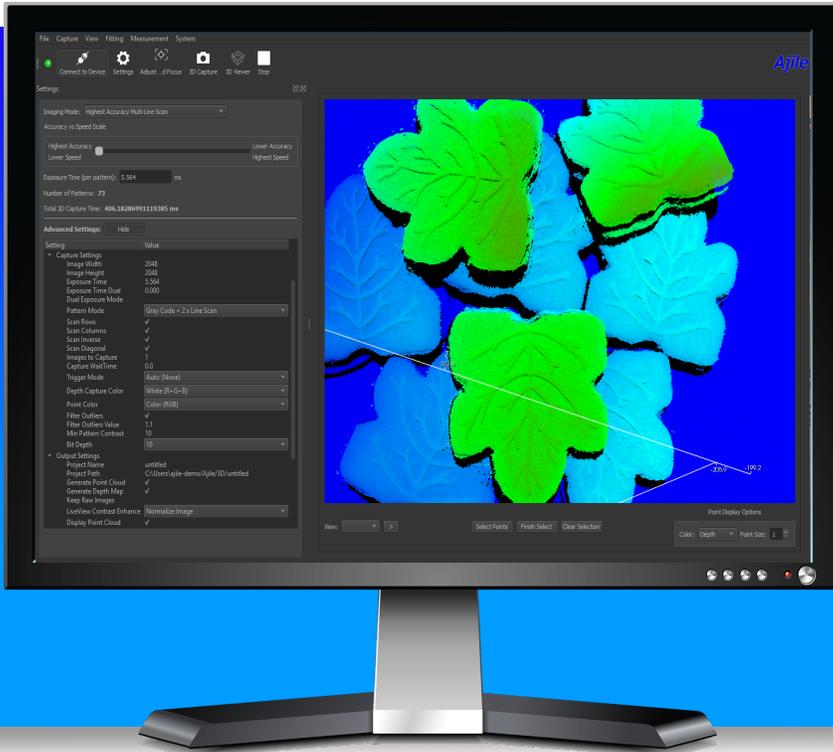




DepthScan

3D Imaging Systems



Fast, Flexible, Accurate 3D
Ajile 3D imaging systems are ideal for machine vision and metrology applications. Offering full color 3D in real time with a broad range of settings customized to the shape, size, and surface quality of any part, along with 3rd party integration for inspection, robot control, reverse engineering, or direct export.

Key Features:

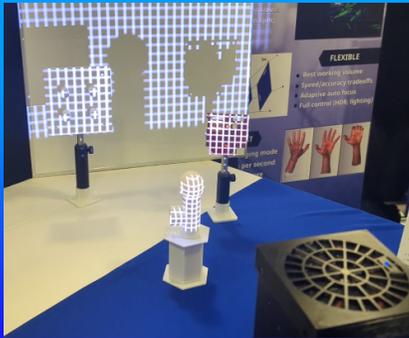
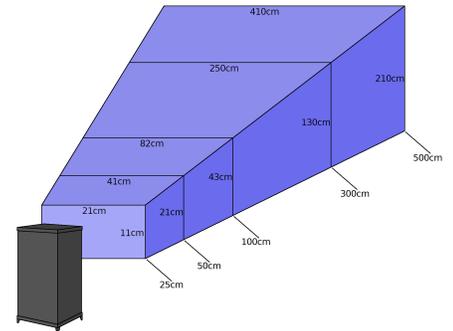
- Outputs high quality point clouds in full RGB color
- Depth accuracy up to 50 μ m
- Adaptive auto focus for variable working distance
- Advanced settings for high-contrast or reflective parts
- High-speed mode up to 30fps
- Easy 3rd party integration with other platforms
- Built in analysis and workflow toolkits (GUI/SDK)
- Ambient light correction
- Fast USB3.0 data transfer for real time output
- Multi-camera and multi-angle stitching
- Direct triggering via i/o port on system



FOR MORE INFORMATION EMAIL info@ajile.ca OR VISIT www.ajile.ca

Part-optimized FOV

Depthscan can be factory focused and calibrated for a specific working distance to maximize the useful portion of the field of view occupied by a part or part feature. Advanced settings to manage lighting and other imaging parameters ensure the best possible 3D output for any part.



Auto focus for up to 5m working volume

Capture 3D images at multiple working ranges with a single camera. Ideal for deep bin picking, robot mounted applications, imaging irregularly shaped parts, or repurposing production lines.

Eye-safe LED Structured Light

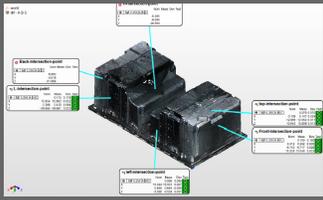
Powerful LED area scan with no need for safety glasses or protective equipment. Depthscan is also available in NIR for medical and human imaging applications. NIR optical components are optimized for 840nm and working distance is fixed at 800mm.



Reflective, Dark, and Large Objects

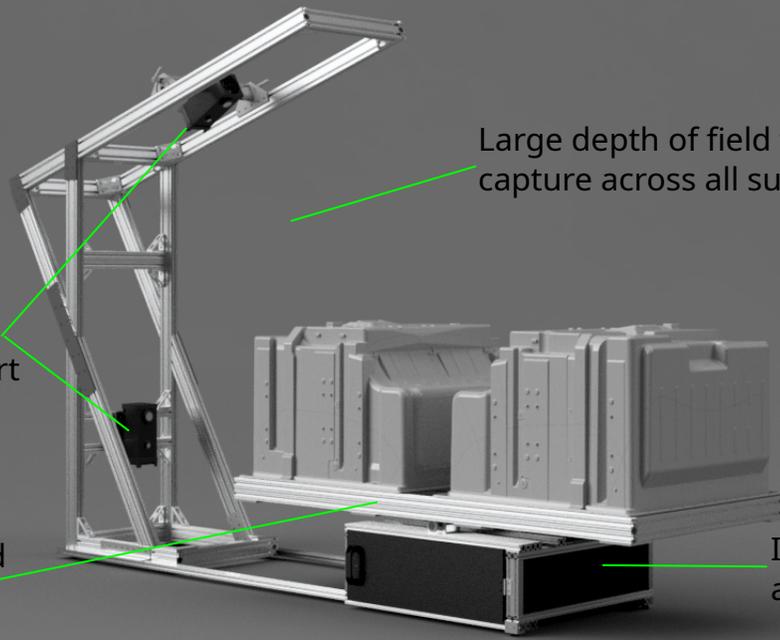
Ajile 3D processing software merges multiple scans, providing metrology quality 3D data from challenging parts. Light level and exposure timing are software controlled and used in combination with multi-camera, robot mounted, and turntable inspection systems.

Inspection Solutions



Dual-cameras mounted for maximum coverage of entire part

Custom carriage with predefined flatness as datum surface



Large depth of field to accurately capture across all surfaces

Integrated turntable accurate to 0.002°

System Specifications

USAGE

3D Technology	Structured light area scan
Illumination	RGB or NIR LEDs
Interface	USB3.0
Processing	On-board preprocessing, GPU
Calibration	Factory calibrated
Software	Ajile GUI / SDK 3rd party plugins
Operating System	Windows, Ubuntu

SETTINGS

High Dynamic Range	Available, user-defined
External Triggering	Available
LED Current	User-controlled
Aperture Control	Manual, motorized
Exposure Time	User-controllerd, min. 0.15ms

CAPABILITIES

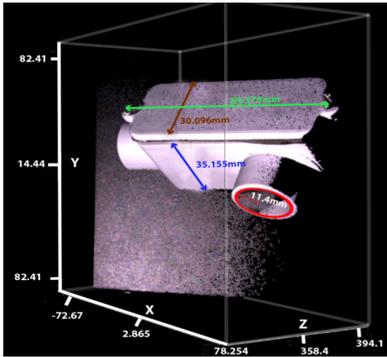
Working Distance	250mm - 5000mm
Field of View	User-adjustable 110x210mm to 2100x4100mm
Resolution (250mm WD)	XY: 60µm x 120µm Z: 50µm
Capture speed	2Hz (highest quality) to 30Hz (highest speed)
Output	4MP color point cloud

TOOLS

Process flow	Available in GUI, SDK
Metrology	Geometric measurement
2D Export	All capture frames available
3D Export	pcd, ply, stl, txt available
3rd Party Tools	Polyworks, Halcon, ROS

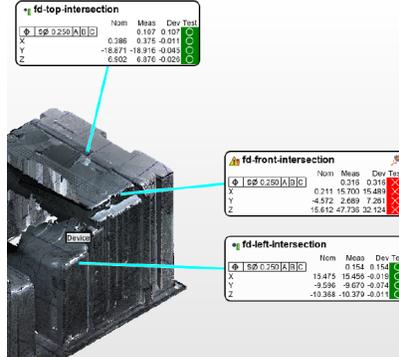
Application Areas:

Inspection / Dimensional Control



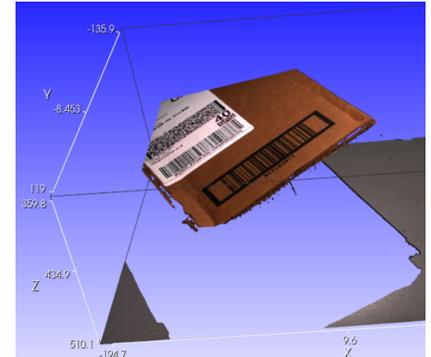
High-accuracy measurement and CAD comparison of parts

3rd Party Software Integration



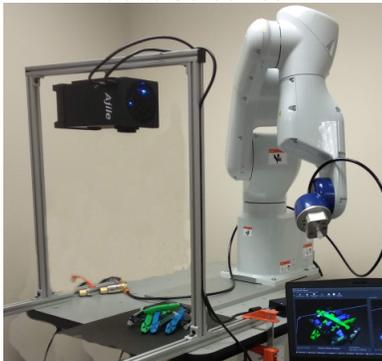
SDK and GUI support for commonly used inspection software packages

Optical Sorting



Color imaging enables sorting by identifying features such as bar codes

Robot Guidance



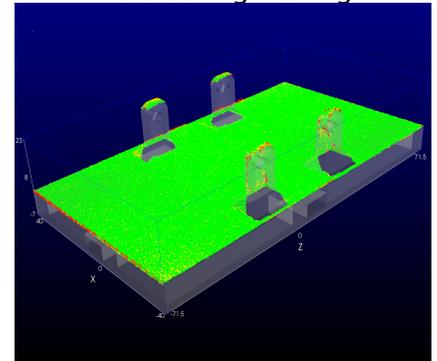
Fast capture and processing for real-time feedback and low-lag responsiveness

Deep Bin Picking



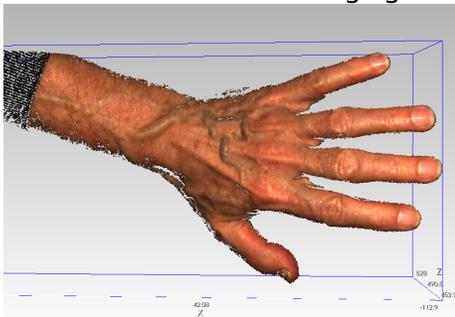
Maintain focus over a very large working volume to pick deep bins

Reverse Engineering



Capture, measure, and extract key features from physical parts

Medical / Human Imaging



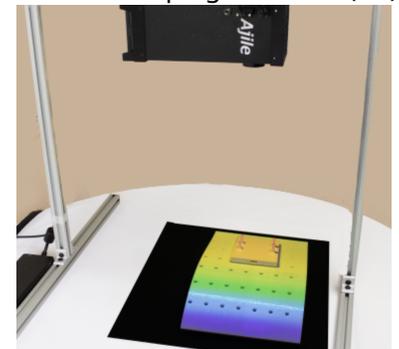
Fast capture and processing for real-time feedback and low-lag responsiveness

Assisted Assembly



Scan for features and project operator feedback onto the scanned scene

Contour shaping feedback (AR)



Reproject directly onto parts for immediate feedback on shape and contour defects

System customization available upon request.
Contact us for details.