

# ARTEC RAY



SCAN UP TO  
**110 m**  
AWAY

- / ULTRA-HIGH PRECISION, FAST LASER SCANNER
- / CLEANEST 3D DATA CAPTURE FOR MINIMUM POST-PROCESSING TIME
- / IDEAL FOR CONSTRUCTION, INSPECTION AND PRODUCT DESIGN

The fastest, most accurate laser scanner for capturing large objects such as wind turbines, ship propellers, airplanes and buildings. Producing 3D data of the highest quality, Artec Ray scans with submillimeter distance accuracy and best in class angular accuracy.

Furthermore, data capture is cleaner than that from any other 3D scanner of this type, with noise levels at an absolute minimum. This speeds up post-processing significantly, making it a hassle free job.

## APPLICATIONS



Reverse  
Engineering



Inspection



Construction  
(BIM)



Product  
Design



Forensics



Heritage  
Preservation



## EASY 3D SCANNING, HIGH PRECISION RESULTS

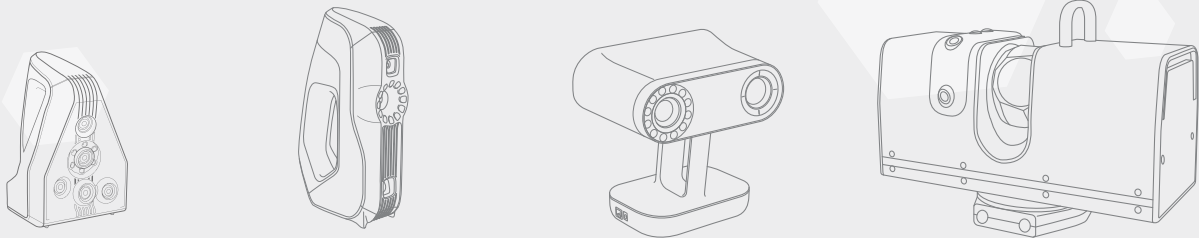
Scanning with Artec Ray is easy - just place it on a tripod in front of your object and press the button! Portable and compact, you can set it up indoors or outdoors, without need for a power source, since the internal battery will last you for up to 4 hours.

## SOFTWARE

*Scan and process directly in the powerful Artec Studio, then seamlessly export to Geomagic Design X.*



## THE FULL 3D SCANNING PACKAGE



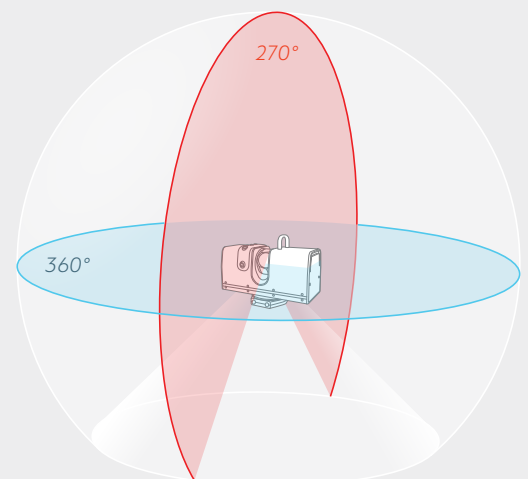
Pair it with an Artec handheld scanner, such as Eva or Spider, to scan difficult to reach areas, e.g. the interior of a car, or to easily add intricate detail to a large-scale 3D model. Armed with Artec Ray and an Artec handheld scanner, there will be virtually no limits to what you can capture in 3D.

## SPECIFICATIONS

|                               | <i>High Quality Mode</i>                 | <i>High Sensitivity Mode</i> |
|-------------------------------|--|------------------------------|
| Recommended Work Range        | 1-50 m                                   | 1-110 m                      |
| Ambiguity range               | 180 m                                    | 180 m                        |
| Ranging error                 | 0.7 mm @ 15 m                            | <0.9 mm @ 15 m               |
| Angular accuracy              | 25 arcsecs                               | 25 arcsecs                   |
| Range noise, 90% reflectivity | 0.12 mm @ 15 m                           | 0.25 mm @ 15 m               |
| Range noise, 10% reflectivity | 0.3 mm @ 15 m                            | 0.7 mm @ 15 m                |
| Speed (points/second)         | 208,000 pts/sec                          |                              |
| Scanning modes                | Autonomous or via USB                    |                              |
| Color                         | Two fully integrated 5 megapixel cameras |                              |

## FIELD-OF-VIEW PER SCAN

|                      |      |
|----------------------|------|
| Horizontal (maximum) | 360° |
| Vertical (maximum)   | 270° |



## KEY SPECS

|                               |  |
|-------------------------------|--|
| Range                         | Up to 110 m                              |
| Ranging error                 | <0.7 mm @ 15 m                           |
| Angular accuracy              | 25 arcseconds                            |
| Range noise, 90% reflectivity | 0.12 mm @ 15 m                           |
| Range noise, 10% reflectivity | 0.3 mm @ 15 m                            |
| Color                         | Two fully integrated 5 megapixel cameras |

## SYSTEM SPECIFICATIONS

|   |   |
|---|---|
| Scanner Type                            | Phase Shift, Hemispherical Scanner with 360° x 270° field of view |
| Distance Measurement Method             | Phase-shift   |
| Laser Wavelength                        | 1550 nm   |
| Laser Type                              | Continuous Wave   |
| Laser Class: (IEC EN60825-1:2007)       | Class 1   |
| Internal Coordinate Representation Unit | 0.001 mm  |

### Angular position data

|   |          |
|---|----------|
| Beam diameter at Aperture                                       | 3 mm     |
| Internal Angular Representation Unit<br>(vertical / horizontal) | 1 arcsec |

### Scan density control: software selectable

|                               |                  |
|-------------------------------|------------------|
| Min. Vertical Point Density   | 12 points/degree |
| Min. Horizontal Point Density | 2 points/degree  |
| Max Vertical Point Density    | 80 points/degree |
| Max Horizontal Point Density  | 80 points/degree |

### Physical dimensions and weight

|                      |                          |
|----------------------|--------------------------|
| Weight with battery  | 5.74 kg                  |
| Dimensions L x H x W | 287 mm x 200 mm x 118 mm |

### Power specifications

|                               |  |
|-------------------------------|--|
| External power supply voltage | 14 - 24V DC, 30 W  |
| Internal battery power supply | Two Li-Ion 14V, 49Wh batteries,<br>powers the scanner for up to 4 hours. |
| Power consumption             | 30 W   |

### Computer requirements

|                               |   |
|-------------------------------|---|
| Supported OS                  | Windows 7, 8 or 10 – x64                                      |
| Minimum computer requirements | i5 or i7 recommended, 32 Gb RAM,<br>NVIDIA GeForce 400 series |