

# Professional 3D scanning solutions



Industrial design and manufacturing / Healthcare  
Science and education / Art and design

**CERTIFIED**  
Solution  
Partner

 **SOLIDWORKS**



 Artec 3D

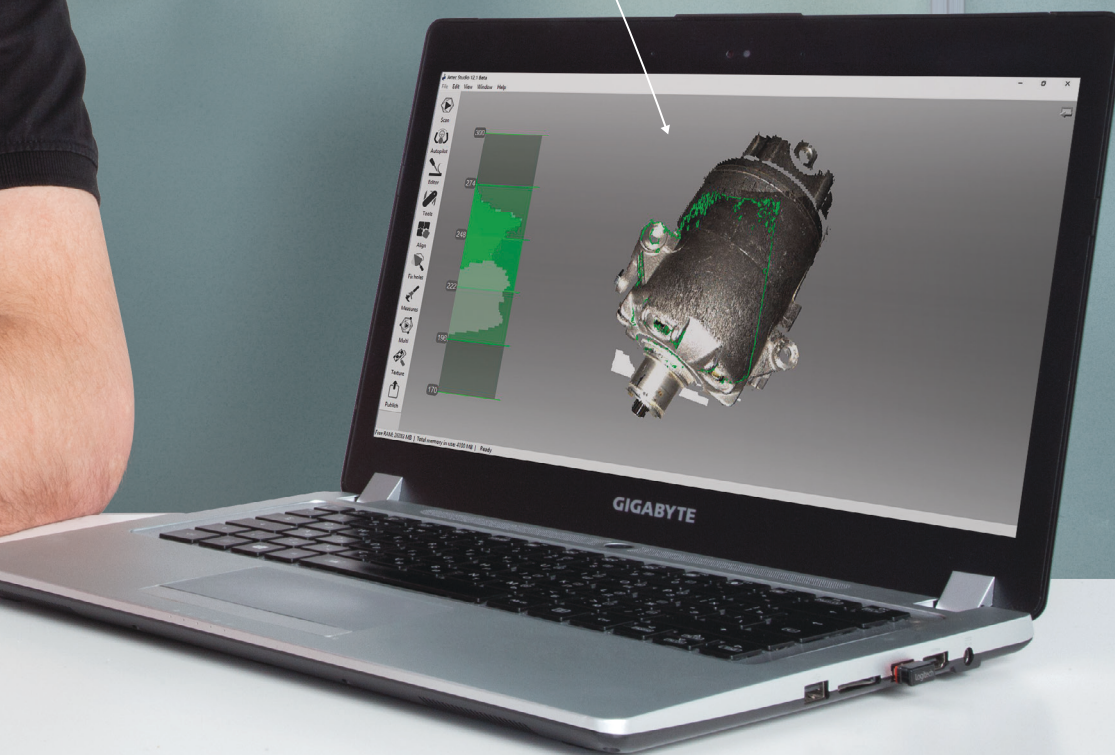
Artec Eva and Space Spider:

# The perfect package for mass production, industrial design & more

Artec Eva and Space Spider are the ideal 3D scanners for professional use. Unrivalled in their scanning quality, they are proven to scan fast and in very high resolution, while being easy to use.

## Very high resolution

Create a quick, textured and accurate scan of medium to large surface areas with Eva, and use Artec Space Spider to scan small areas, capturing intricate detail with minute precision.





# A tried and tested product used in a wide range of industries

Artec Eva and Space Spider are used in countless industries, including quality control, the automotive industry, medicine, heritage preservation, computer graphics, design, forensics, education, reverse engineering and architecture.

## Artec Studio professional 3D data processing software

Scan with Artec Studio advanced 3D data processing software for editing data fast and effectively using Artec's unparalleled algorithms. Then export the results into a wide range of formats:  
Mesh: OBJ, PLY, WRL, STL, AOP, ASC, Disney PTX (PTEX), E57, XYZRGB  
CAD: STEP, IGES, X\_T  
Measurements: CSV, DXF, XML

Use models in a wide range of software:



Easy integration:

# Integrate Artec Eva or Space Spider into your own scanning system using Artec Scanning SDK

With Artec Scanning SDK you can now achieve the very best in scanning results also using your own software, integrating Artec Eva and Space Spider into almost any system.

Either adapt your current software to support Eva and Space Spider, or develop your own software to spec.

Whether you want to scan for medical purposes, industrial quality control, or reverse engineering, Eva and Space Spider can be easily assimilated into your specialized solution.



XBOX 360



PR2



Artec Eva and Space Spider:

# New possibilities for forward thinking industries

From rapid prototyping to quality control, CGI to heritage preservation, the automotive industry to forensics, medicine and prosthetics to aerospace, Artec Eva and Space Spider are used to customize, innovate and streamline a wide range of different industries.

## In focus: **Reverse engineering**

Test and redesign a part without manufacturing defects using 3D scan data.



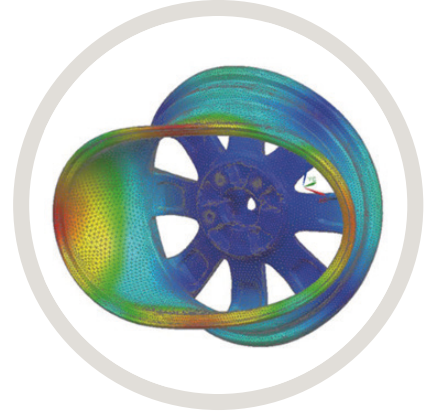
*Scan your object fast and with high accuracy*



*Create your 3D model using Artec Studio algorithms*



*Export to simulation software*



*Analyze how the object reacts under specific conditions*





## In focus: CGI

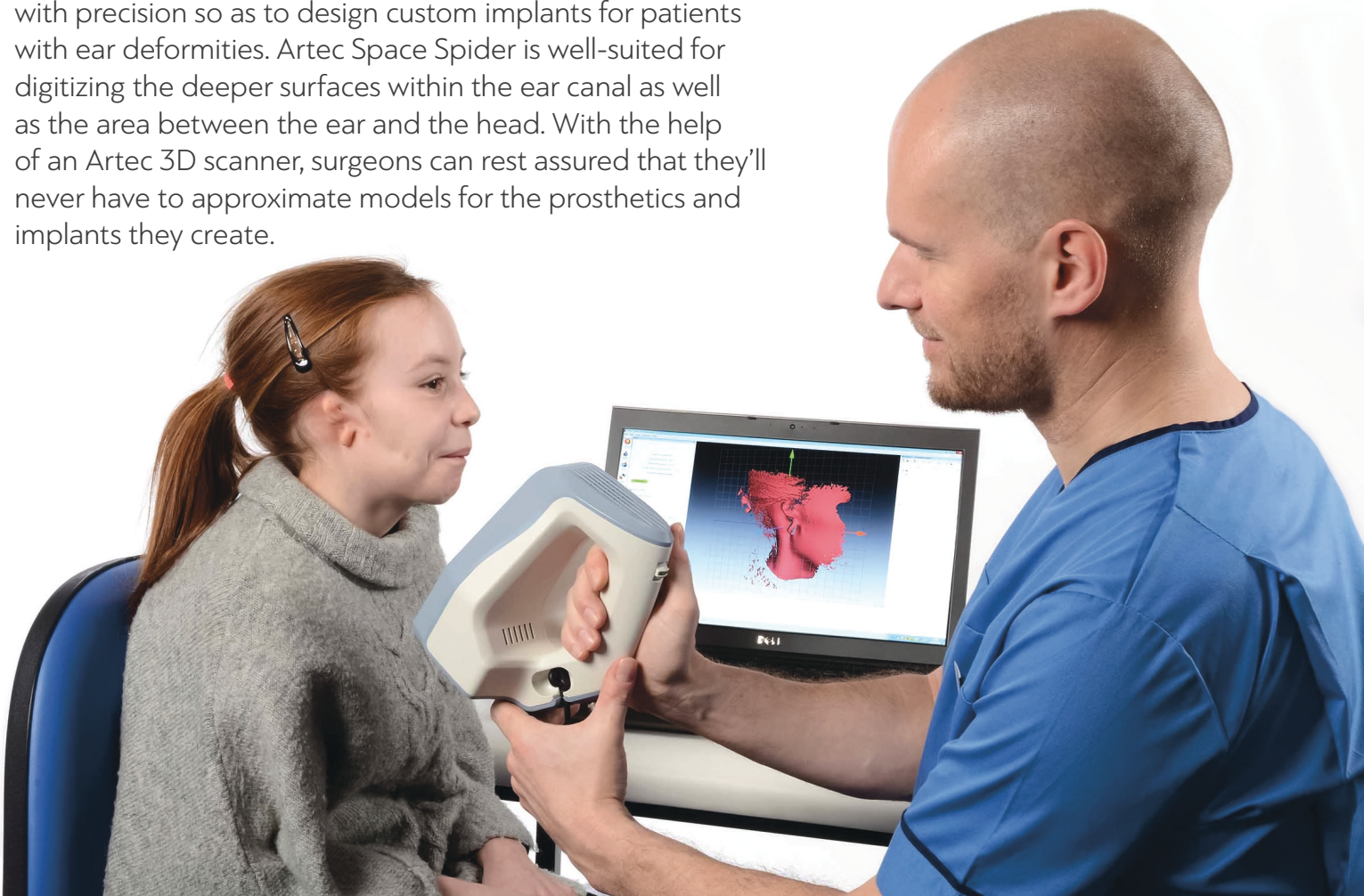
Digitally capture a person or object to create a 3D CG model for use in visual effects.

Artec Eva and Space Spider are widely used in the entertainment industry, including by TNG Visual Effects, who have provided their 3D scanning services to blockbuster films such as *Twilight: Breaking Dawn 1 & 2* and *Man of Steel*.



## In focus: Orthotics and Prosthetics

Use Artec Space Spider to capture the geometry of ears with precision so as to design custom implants for patients with ear deformities. Artec Space Spider is well-suited for digitizing the deeper surfaces within the ear canal as well as the area between the ear and the head. With the help of an Artec 3D scanner, surgeons can rest assured that they'll never have to approximate models for the prosthetics and implants they create.



## In focus: Heritage preservation

Scan and create replicas of cultural objects, preserve them for posterity, digitize collections and make them accessible to everyone all over the world.

*Photo: Scanning a 1.8 million year old giant crocodile at a paleontological site in Kenya.*





See 3D models of prehistoric fossils scanned by Artec Eva and Space Spider on [africanfossils.org](http://africanfossils.org) free online lab.

# 3D scanning has never been so portable

Artec handheld 3D scanners are compatible with both lightweight laptops and tablets, making for the best all round user experience. Plus with the Artec battery pack, which gives you up to 6 hours scanning time, you really can take Artec scanners anywhere, capturing objects right in the field.

## Artec battery pack



## Compatible tablets & lightweight laptops\*

Tablets: Microsoft Surface Pro 4, Surface Pro 3, Wacom Mobile Studio Pro 13" & 16" i7 512 GB, Wacom Cintiq Companion 2

Lightweight laptops: Dell XPS 15, HP Omen, HP ZBook 15 G3 Mobile Workstation, Gigabyte P34G v2

*\*These models have been tested and verified by Artec 3D, however other lightweight options may also be available.*

Artec Eva and Space Spider:

# What you need to know



## Extremely versatile

Scan a broad range of objects with Artec Eva and Space Spider. Use Eva for medium to large objects and Space Spider for small objects



## Fast and accurate

Eva scans fast, capturing and simultaneously processing up to two million points per second with up to 0.1mm accuracy



## Speed and precision

Artec Space Spider processes up to one million points per second and produces images of extremely high resolution (up to 0.1 mm) and superior accuracy (up to 0.05 mm)



## Safe to use

Artec scanners employ structured light technology and are totally safe for scanning people



## Tablet compatibility

Scan with a tablet for greater mobility



## Real-time scanning

Frames are automatically aligned in real time



## Target free

No object preparation needed. Start scanning from the word go



## Easy integration

Integrate Artec Eva or Space Spider into your own scanning system using Artec Scanning SDK



## Portability

Lightweight and battery compatible, you can take Artec scanners anywhere. The Artec battery pack provides power for up to 6 hours of scanning



## High resolution

Scan in brilliant color and high resolution (Eva up to 0.5mm, Space Spider up to 0.1mm)



## 3D video mode

Scan a moving object and record a real-time 3D video



## Bundling

Several scanners can be bundled together and synced to scan larger objects automatically

# Artec Studio 15

## Revolutionary 3D scanning and data processing software

Enjoy the smartest, easiest and most effortless scanning ever with Artec Studio 15



## Easy 3D scanning with Artec Studio 15

Creating 3D scanning masterpieces requires smart and powerful software to capture, process, analyze and edit data.

- \ User-friendly and intuitive interface for smooth, expertly guided 3D scanning
- \ Quick and easy start-up process. No special positioning requirements, just point and shoot
- \ Artec Studio 15 software is compatible with tablets as well as 3D sensors, and together with the battery pack for the 3D scanner, you can easily create professional scans anytime and anywhere
- \ Now anyone can achieve professional results with the most comprehensive and straightforward 3D scanning software on the market today.
- \ Get high quality scans every time with a smart tracking system that ensures correct movement of the scanner and object capture
- \ Stop or pause scanning and continue exactly from where you left off, with the smart auto-continue feature
- \ Achieve equally great results using both manual and Autopilot modes

## Smart, fast and automated data processing

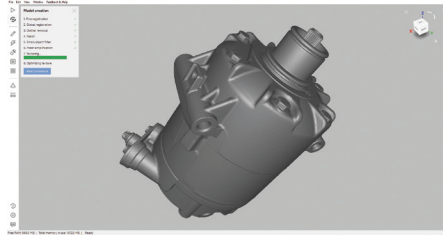
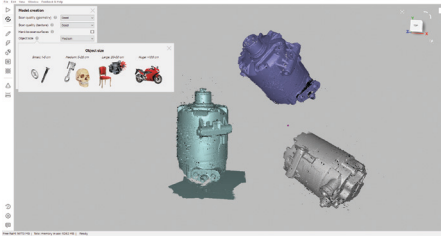
What was once tricky and time consuming for new and inexperienced users is now a thing of the past.

## Making accurate 3D models has never been so straightforward



Create professional 3D objects in just a few clicks using AUTOPILOT, the smartest and most advanced data processing mode ever.

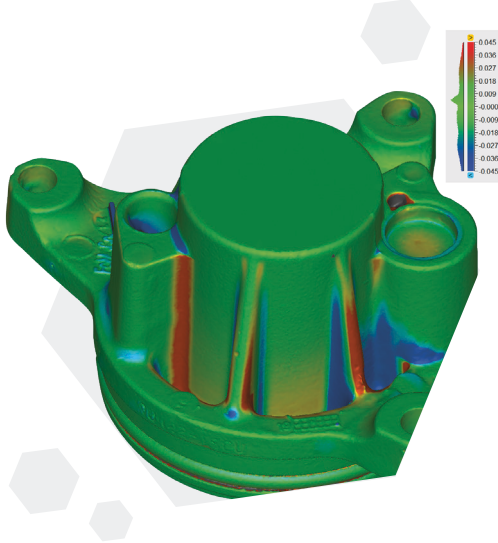
# Autopilot. An essential tool for beginners, a time saver for experienced users



Answer a few easy questions about the object you have scanned, including its size, geometry and texture. All the questions are illustrated with clear examples.

Based on the info provided, Autopilot automatically chooses the right algorithms and settings to create the best possible result.

Fast and accurate application of automatically selected settings for all the processing stages: Creates a high precision 3D model in no time.



## Inspect your 3D model in Artec Studio

\ Import a CAD file and compare it with your 3D scan.

\ Use primitives to measure deviation

\ Get all the needed measurements including the surface and volume of your model

\ Annotate your 3D objects

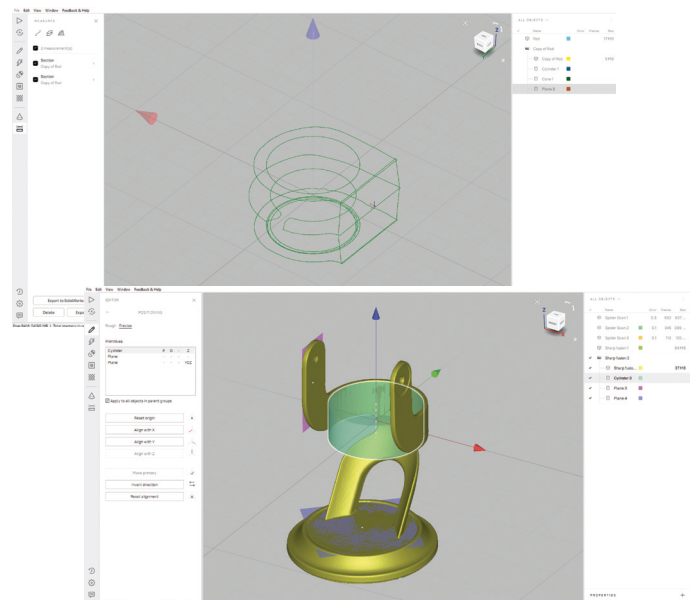
## Scan to CAD for reverse engineering

\ Fit CAD primitives to your 3D model

\ Precisely position your 3D scan in the global coordinate system

\ Save fitted primitives as a CAD file and import to SOLIDWORKS, Design X or other CAD software

\ Create precise sections and export contours as DXF





## Eva

Artec's fastest structured-light  
3D handheld scanner



**NEW**  
**EQUIPMENT**  
**DIGEST 2016**  
**INNOVATION**  
**AWARD**  
**WINNER**

## Space Spider

Metrological device  
for superior precision

Long-term repeatability  
in data capture

Automatic temperature  
stabilization

*All Artec handheld scanners come with a USB cable and power cord.*

## Where to buy Artec 3D scanners

Find Artec Eva and Space Spider in stock  
at over 110 distribution centers worldwide.  
[www.artec3d.com/where-to-buy](http://www.artec3d.com/where-to-buy)

## Optional extras:



Battery  
pack

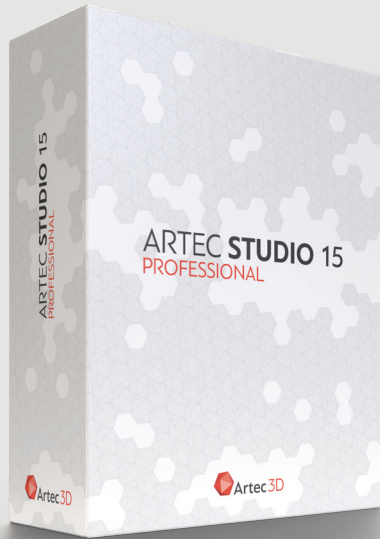


Shoulder  
bag



Hard carry  
case





## Artec Studio 15 Professional

For use with all Artec 3D scanners



### Global support, training and integration

offered by every distribution center and online by Artec 3D's dedicated support team.



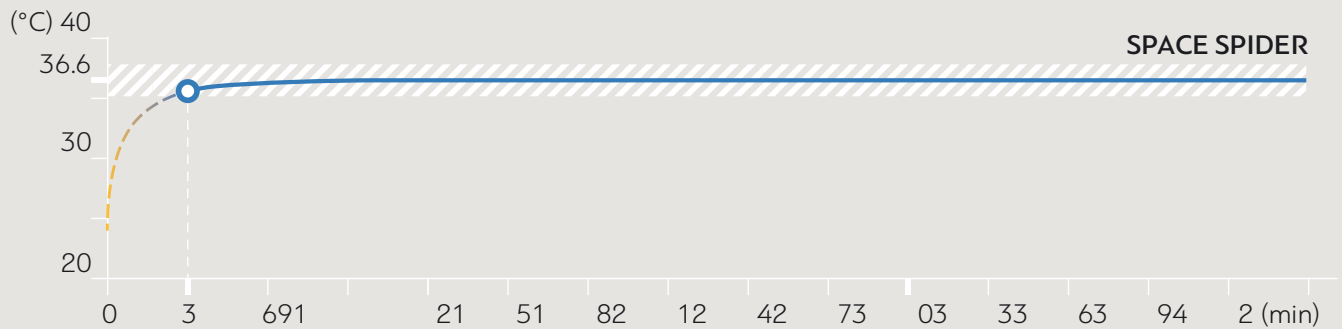
### Artec Scanning SDK free to download

[www.artec3d.com/3d-software/sdk](http://www.artec3d.com/3d-software/sdk)


	EVA	SPACE SPIDER
Ability to capture texture		Yes
3D resolution, up to	0.5 mm	0.1 mm
3D point accuracy, up to	0.1 mm	0.05 mm
3D accuracy over distance, up to	0.03% over 100 cm	
Texture resolution	1.3 mp	
Colors	24 bpp	
Light source	flash bulb	blue LED
Working distance	0.4 – 1 m	0.2 – 0.3 m
Linear field of view, H×W @ closest range	214 × 148 mm	90 × 70 mm
Linear field of view, H×W @ furthest range	536 × 371 mm	180 × 140 mm
Angular field of view, H×W	30 × 21°	
Video frame rate, up to	16 fps	7.5 fps
Exposure time	0.0002 s	
Data acquisition speed, up to	2 million points/s	1 million points/s
Multi core processing	Yes	
Dimensions, H×D×W	261.5 × 158.2 × 63.7 mm	190 × 140 × 130 mm
Weight	0.9 kg / 2 lb	0.85 kg / 1.9 lb
Power consumption	12V, 48W	12V, 24W
Interface	1 × USB 2.0, USB 3.0 compatible	
3D mesh formats	OBJ, PLY, WRL, STL, AOP, ASC, Disney PTX (PTEX), E57, XYZRGB	
CAD formats	STEP, IGES, X_T	
Formats for measurements	CSV, DXF, XML	
Processing capacity	40 million triangles / 1GB RAM	
Supported OS	Windows 7, 8 or 10 – x64	
Minimum computer requirement	i5, i7 or i9 recommended, 12GB RAM	i5, i7 or i9 recommended, 18GB RAM
Calibration	no special equipment required	

# Space Spider

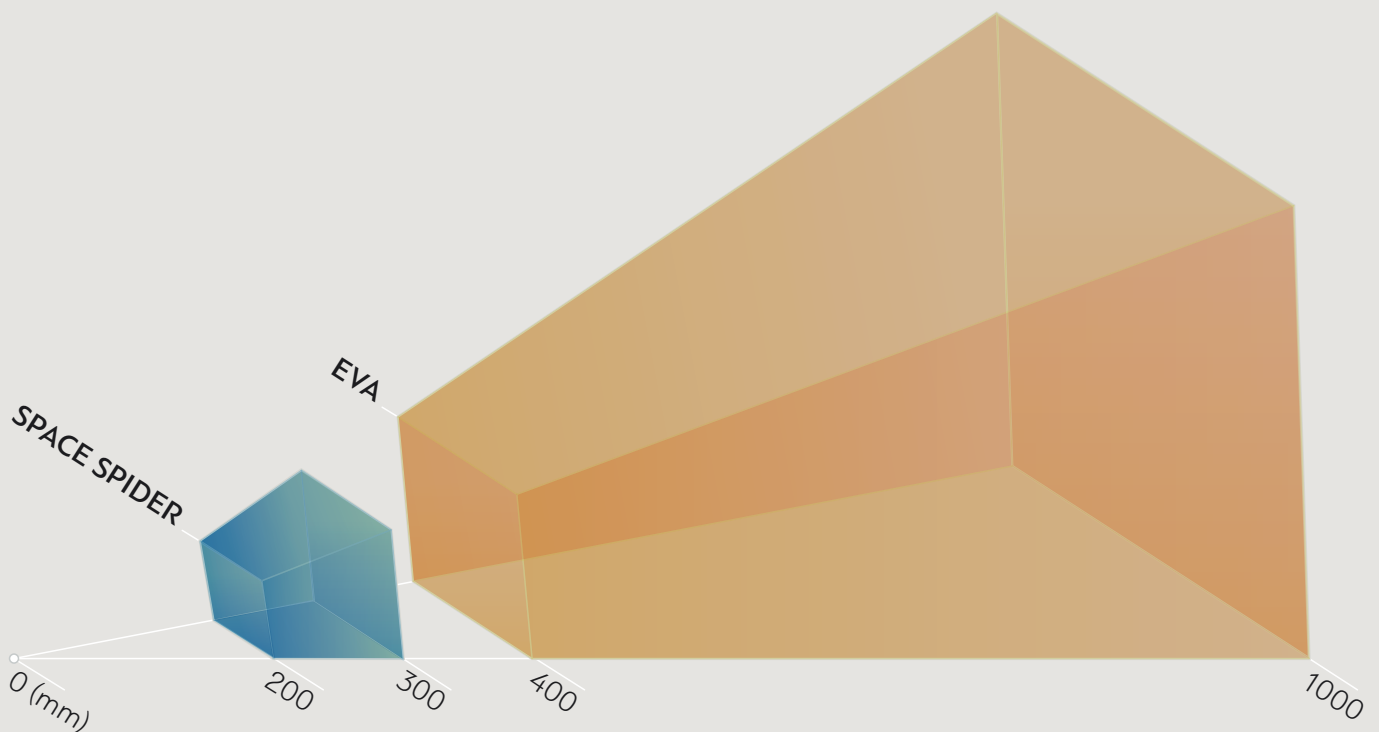
Warm up period for achieving maximum accuracy



To achieve the very best results, every measurement tool is usually tuned to the conditions of a particular use case. Space Spider, however, keeps its precision in a wide range of temperatures and adjusts to the conditions in only 3 minutes, saving you precious time.

 temperature range for achieving maximum accuracy

## Field of view of Artec 3D scanners





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