

SENSE 3D SCANNER TECH SPECS

Supported operating systems

Windows 7® (32-bit or 64-bit)

Windows 8® (32-bit or 64-bit)

Mac OS X 10.8 or later

Maximum power consumption

2.25 watts

Scan volume

Min: 0.2m x 0.2m x 0.2m

Max: 3m x 3m x 3m

Dimensions

17.8cm x 12.9cm x 3.3cm

Operating range

Min: 0.35m

Max: 3m

Depth image size

240(w) x 320(h) px

Field of view

Horizontal: 45°

Vertical: 57.5°

Diagonal: 69°

Spatial x/y resolution @ 0.5m

0.9mm

Depth resolution @ 0.5m

1mm

Operating temperature

10-40° C

Data interface

USB 2.0/USB 3.0

Data format

16 bit

Maximal Image Throughput

30 fps

USB Cord Length

213cm

Color Image Size

240(w) x 320(h) px

Hardware recommendations

Intel® Core i5™ or equivalent processor

RAM: 2 GB minimum

1280 x 1024 minimum screen resolution

Color: 32-bit

4 GB available hard disk space

FAQ: Sense 3D scanner

What is the scan volume of Sense 3D scanner?

The scan volume can be as small as 8 inches, to as large as 118 inches. The Sense 3D scanner has automated settings for optimized scanning of small objects (<18 inches), medium objects like a portrait or bust (<32 inches) and large objects like a full body or scene (<6 feet). The Sense 3D scanner has the most diverse scan range in its class with auto-optimized settings for small and large objects like a book or a motorcycle, heads to full bodies and scenes as large as 10 feet tall and wide.

What is the connectivity for the Sense 3D scanner?

USB 2.0 is the preferred connection.

How long does it take for the scanner to start up?

The scanner will start supplying scan data one second after connection and identification.

What operating systems work with Sense 3D scanner?

Windows 7, Windows 8, Windows 8.1, Mac OS X 10.8 or later.

Is there any special software needed for Sense 3D scanner?

The Sense 3D scanner comes with proprietary software. The scanner and software do not work without each other. The software allows you to scan, crop, edit, enhance and export your scan for further editing like mashing it up with another design in software like Cubify Sculpt, 3D print it or upload to Cubify.com.

What is the resolution of scans from Sense 3D scanner?

It varies. At the highest resolution, the point-to-point spacing will be around 0.025 inches, and you will get scans ranging from about 20,000 to 400,000 triangles

What file types does Sense 3D scanner export?

The Sense 3D scanner software produces STL, OBJ and PLY files from the final scan. The latter two support per-vertex color output.

Is the Sense 3D scanner compatible with 3D printers other than the Cube and CubePro?

Yes, the Sense 3D scanner outputs an STL, OBJ or a PLY file that lets you print scans on other 3D printers.

Does the scanner need to be calibrated?

There is absolutely no need for any manual calibration by the user as the scanner self-calibrates during production.

What is scanner's optimal distance range?

The scanner can capture depth images from 15 inches to 60 inches away for the subject. The scanner can capture depth at further distances, but these will be beyond the scope of the scanner's guaranteed performance.

Will the scanner work outdoors?

Different lighting conditions can affect the scanner's depth acquisition abilities. In general, the Sense Scanner is designed for indoor use and will work less optimally in direct sunlight.

Can the scanner operate in complete darkness?

Yes, though you will not capture any color with the scan data.

Does the Sense 3D scanner use lasers?

Yes, it projects a pattern onto the surroundings using an infrared Class I laser projector. This pattern is invisible to the naked eye.

Is the scanner safe for the human eye?

Yes, the scanner is a Class 1 certified product. Moreover, the scanner includes hardware and firmware mechanisms that monitor the laser and shut it down in the event of the slightest fault.

Why are there two cameras on the right side of the scanner?

One of the cameras captures the geometry and the other captures the color.

Why are nearby objects scanned with more detail than far away objects?

The scanner's view is projective, meaning closer objects are seen with greater detail than objects that are further away. Basically, the scanner operates the same way as our eyes. As such, an object that is one inch in size and close to the scanner can be seen better than the same object that is farther away from the scanner.

Can I open the Sense 3D scanner to see what is inside?

Opening the Sense 3D scanner is strictly forbidden and will be considered a material violation of the license agreement.

Why does the 3D view turn white and nothing is visible when I get the scanner very close to an object?

This happens if you get closer than the scanner's minimal defined distance (15 inches).

What temperature range is suitable for the scanner?

The scanner should not be operated outside of the specified temperature range. The scanner's design specifications call for temperatures between 5 °C and 40 °C for optimal use. Higher or lower temperatures may alter the scanner's performance, and in extreme deviations from the defined specification, the scanner may not work at all.