FAQs for Scoobe3D Precision 3D Scanner

How do I operate the 3D scanner?

The Scoobe3D Precision will offer different scanning modes. A mode for very accurate scanning and in the near future a fast mode with lower accuracy (0.5-1 mm accuracy). To scan an object with 0.5 mm accuracy, this is currently the scanning process:

1. Place the object on a free, flat surface. The surface must stand out clearly from the object. The scanning surface and the surroundings of the object should not reflect or mirror.
2. The lighting must be indirect (diffuse) and illuminate the object from all sides, ideally the main light comes from above. Shadows cast by the object should be avoided.
3. Place the two supplied scan cards in front of and behind the object at a distance of 3-6 cm -> For 0.5 mm accuracy; currently necessary to perform a scan.
4. Place the Scoobe3D in the tripod mount and point your Scoobe3D at the scan object at a 45° angle to the surface.
5. Start your scan -> this is how you scan the top and the side of the object
6. Keep the tripod still while the Scoobe3D scans the first position
7. Then move the tripod and the Scoobe3D to the next position (the user interface will guide you).
8. Walk in a circle around the object
9. Your scan is finished as soon as you have recorded all scan positions.
10. To upload your finished scan, make sure you have a stable internet connection. Without an internet connection, buffering is also possible. The calculation of your 3D model will then be postponed until an internet connection is available.
11. A high-precision 3D model is then calculated on the server and sent to your Scoobe3D.
12. You can email the 3D model directly from your Scoobe3D. Or you can access the web app from a computer and download the 3D model in your preferred file format (including STEP and STL). You can also share the 3D model by email from your computer.

As we are constantly developing the Scoobe3D and adapting it to customer needs, the process may change slightly.

Can I also create CAD files?

- Yes, the Scoobe3D Precision delivers STEP files if you use a Professional Scan Plan. You can then work with the STEP format in any CAD software. This way you adapt the assembly according to your ideas: simple operations like scaling the size in X-, Y-, and/or Z-direction are possible. An example procedure with FreeCAD: Convert STL to solids

- Changes that require a clean mathematical description of the model in detail are not possible. For example, it is not possible to change the radius of a cylindrical element of the 3D model. For a professional processing a reverse engineering tool would have to be used here.
- The Scoobe3D Precision also generates OBJ and STL files if you only use a Free Scan Plan. These files can be derived from STL to STEP using, among other things, the paid "Solidworks". This is possible in Solidworks by default, but difficult for large files (sometimes you need to install an importer module, which can be downloaded for free from the Solidworks homepage).

How accurate is the scan in relation to the distance?

- The resolution of the Scoobe3D Precision is 0.1 mm in X, Y, Z at a distance of 50 cm from the measurement object.
- At a distance of 2 meters, the resolution is 0.5 mm in X and Y axis.

Where can I find test scans?

- The much-anticipated 3D models can be found in the upper section of the page under the tab "3D Scans".

Which surfaces can be scanned?

- All visible surfaces work well, even if they are highly reflective. Not possible are transparent surfaces (e.g. glass) and deep black objects (e.g. black holes) that reflect absolutely no light.
- Background: An optical scanner only picks up optically detectable materials. Transparent and deep black objects are not included.

Where can I see the Scoobe3D in action?

- Watch the Scoobe3D Precision usage **Video** video.

Can I scan people? (Bodyscan)

- Not yet.
- We know that speed is important when scanning people. Therefore, soon comes a High-speed scan mode (<1 min) with an accuracy von 0,5 – 1 mm. However, a single Scoobe3D Precision is designed more for scanning non-moving objects under 1m.
- For extra recording speed, it is possible to scan a person with multiple Scoobe3Ds to record everything in seconds. You also have access to an open API so you can program your own apps to connect all the devices you need. The devices are equipped with Bluetooth and can be triggered via Bluetooth.

- It's hard to say how many devices you'll need in the end. It really depends on what application is most important to you: the distance between Scoobe3D and the person, the number of devices, or the accuracy. For our scans, we usually use 30 positions at the moment, depending on the object.

And if the Scoobe3D does not meet my expectations?

- We don't sell you anything that is not useful to you, we are 100% sure that you will love the Scoobe3D. That's why we've introduced a 7-day return guarantee upon receipt. This way you can test your 3D scanner for 7 days before you decide whether you want to keep it.

Why can't I use my own server?

- We have gone through this question a million times ourselves here at Scoobe3D because the security of your data is very important to us. However, we have good reasons for our decision to realize Scoobe3D with a server:
- **Maintenance costs:** For the beginning it is quite expensive to run your own server. This increases the total cost of your 3D model. Using one server to calculate all 3D models is a cost-effective solution that supports our goal of making 3D scanning accessible to everyone.
- **Software updates and troubleshooting:** Fixing bugs is an essential part of any software development. Therefore, any software update would have to be uploaded to your server by yourself in order to implement it. This is very time consuming and complicated - contrary to our premise of developing an easy-to-use 3D scanner. It also makes the 3D scanner more expensive, as these updates would probably have to be released as new versions of the software. The web-based server solution was chosen because it ensures that all our customers have a stable and reliable software version available at all times.
- **Security of the own server:** If you use your own computer for calculation, you would have to set up an intensive security system to be on the safe side - especially with Windows computers. We will implement regular security updates and effective encryption to ensure that your files are only your data. The encryption works with a key that is unique to each user, so only you can access your data. We do not store any of your data outside of the calculation.

What 3D model file formats are available?

You can download your 3D models in the following file formats:

- obj
- ply

- stl
- stp
- glb (available soon)
- off (available soon)