

3D Handheld Laser Scanner



SLAM stands for **simultaneous localisation and mapping**. The X120^{GO} is a LiDAR-based SLAM system that uses a laser sensor to generate a 3D map of its environment. LiDAR (Light Detection and Ranging) measures the distance to an object (for example, a wall or pole) by a pulse from its laser scanner. It uses an advanced onboard processor to keep track of its location whilst the scanner moves through the area.

An operator using the X120^{GO} can quickly build up a 3D model of a complex area in minutes from turning on. The field acquisition takes as long as it would take to walk in and around the project area. It makes an ideal tool for mapping a cave for Archeology or a tunnel in underground mining. Other applications might be to quickly survey an accident scene or for an As Built survey at a construction site. The 3D data can be used to quickly calculate volumes at a busy mine site or to create a contour map of an area.

STONEX SLAM technology delivers more range and more points per second than its competitors. It's best in class on board processing algorithms reach unmatched speed of capture and reliability even in demanding environments.

Rapid data acquisition

No more multiple scan stations, just move around the scene to collect the entire 3D point cloud, without time-consuming cloud to cloud alignment. Download all the data right after the capture.

See in **real time** your scanning progress using the included Android App from Stonex.

Reference points (targets) can be placed prior to scanning the project area. Control points can also be collected whilst capturing data for the point cloud. The processing software can then use these points to georeference the point cloud and the final output.

The X120^{GO} has three (3) **integrated cameras** that can cover the wide field of view of the laser scanner, to obtain coloured point cloud imagery and panoramic images.

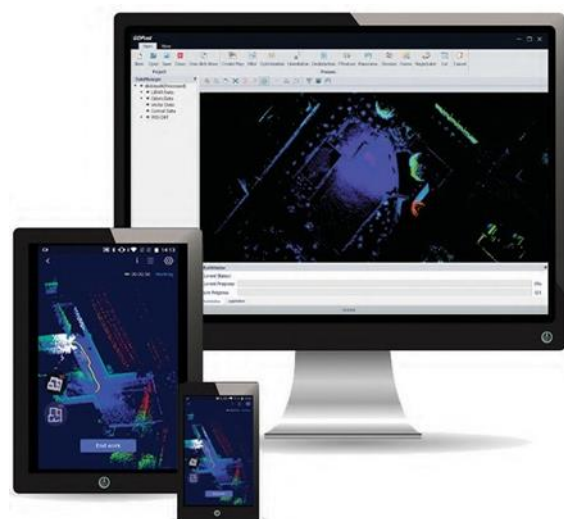
Bundled Software.

The **GO App** is the mobile application for X120^{GO} to use when scanning points. It also manages projects, real time point cloud display, image preview, firmware upgrades for the X120^{GO}. The App runs on the Android operating system

GOpost can post-process the data collected by the X120^{GO} to produce high-precision point clouds, local panoramas, optimize point cloud results, and browse point cloud. This software runs on Windows 10 or higher.

Stonex and 3rd party software

Stonex Cube-3d is Photogrammetric software for post processing Lidar and photo images to create maps and volumes. It can transform image data into highly accurate digital maps and 3D models with extreme precision. It can import Stonex's Cube-a surveys and the scanned imagery from GOpost as well as being fully compatible with any third-party 3D models.



PointCab

Thanks to the collaboration between Stonex and PointCab, you can manage your point clouds with it. PointCab Origins is your Swiss army knife when it comes to the evaluation of point cloud data - working with all laser scanners and compatible with all CAD and BIM systems. Please [Ctrl + Click to visit their site](#)

STONEX 3D Reconstructor

Stonex Reconstructor software allows you to manage and align point clouds acquired through laser scanners or other sensors, clouds produced by photogrammetry and in general any point cloud. Expand functionality with add-on modules.

X120^{GO} TECHNICAL FEATURES

Laser scan Performance

Maximum range	120 metres
Minimum range	0.5 metres
Relative Accuracy	up to 6mm in controlled enviro.
Vertical Resolution	16 channels
No. of points per second	320,000 points
Field of View	360° horizontal x 270° vertical
Laser Class	Class 1.
Echo Strength	8 bits

Camera Performance

Cameras	3 x 5 Mega pixels
Cameras FOV	200° horizontal x 100° vertical
Image	Semi-spherical, RGB
RGB Point Cloud	Support by 3 rd party software

System Specification

Memory	32Mb (expandable)
Operating system	Android 8 or above
Communication	Wi-Fi and NFC

Power Specification

Power Consumption	25 Watts
Operating Time	2.5 hours
Capacity	13,400 milli Amp hours

Physical Specs.

Weight	1.6 kg – without batteries
Size	372mm x 163mm x 106mm
Operating Temp.	-10°C to 45°C
Operating Humidity	< 85% Relative Humidity
Waterproof / Dustproof	IP54 rating



 **STONEX**