

X70<sup>GO</sup> Laser Scanner

3D Handheld  
Laser Scanner

X<sup>+</sup>WHIZZ<sup>3000</sup>



# X70<sup>GO</sup> The new era of hybrid scanning

X70<sup>GO</sup> is a real-time 3D model reconstruction device which integrates inertial navigation module, high performance computer and storage system.

It is equipped with a 360° rotating head, which, combined with the SLAM algorithm, generates high-precision point cloud data.

A 12 MP visible-light camera provides texture information, while a visual camera guarantees stronger real time preview with GOapp.

Mapping results are generated immediately inside the scanner, right after scanning: choose if you want to color them and improve their accuracy, postprocessing with GOpost software.



## X-WHIZZ MODE

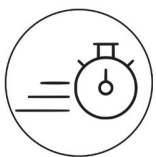
X70<sup>GO</sup> merges mobile and stationary surveying.

To the advantageous SLAM solution that allows you to survey large areas in a very short time, it combines a stationary mode to scan with higher resolution. Mount X70<sup>GO</sup> on a monopod and stand still in key areas for a few seconds. It is the perfect trade-off for those who need speed and detail in a mobile survey.



## REAL TIME RESULTS

The built-in visual camera makes the real time SLAM algorithm more stable, especially in weak structural textures environments. The data are ready to be used as soon as the survey is completed.



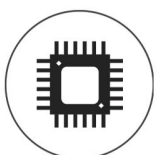
## RAPIDITY AND REDUCED WORKLOAD

No more multiple scan station, just move around the scene to collect the entire 3D point cloud, without time-consuming cloud to cloud alignment.



## AUTOMATIC CONTROL POINT MEASUREMENT

When capturing data, X70<sup>GO</sup> is able to collect reference points too. They can be matched with known control points to georeference the scans.



## HIGH PERFORMANCE COMPUTATION

The system can directly output the mapping results after the acquisition is completed.

You can choose to post-process the data, in case you desire to improve its accuracy.

X<sup>+</sup>WHIZZ TOOL





## SLAM TECHNOLOGY

### Simultaneous Localization And Mapping

STONEX SLAM technology delivers more range, more points per second and best in class on board processing algorithms to reach unmatched speed of capture and reliability even in the more demanding environments.

## BUNDLED SOFTWARE



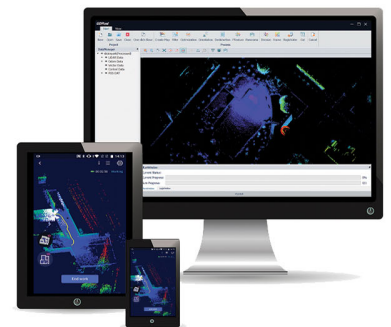
### GOapp

GOapp is a dedicated mobile application for X70<sup>GO</sup>, to manage projects, real time point cloud display, image preview, firmware upgrade and other operations. The APP runs on Android operating system.



### GOpost

Windows post processing software which performs optimization processing, colouring of point clouds, filtering and noise removal. You can also import control points to georeference the point cloud.



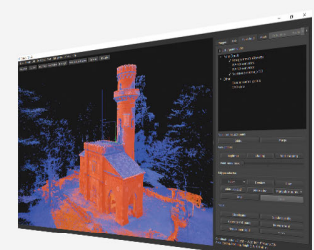
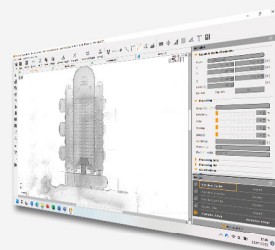
## 3D SOFTWARE



Cube-3d is a Photogrammetric software for mapping and aerial image processing, dedicated to land surveying specialists. It will transform image data into highly accurate digital maps and 3D models with extreme precision. It imports Cube-a surveys and is fully compatible with registered Stonex scans and 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.



# X70<sup>GO</sup> TECHNICAL FEATURES

## LIDAR

|                          |                |
|--------------------------|----------------|
| Max Range                | 70 m @80%      |
| Min Range                | 0.1 m          |
| Scanning Point Frequency | 200.000 pts/s  |
| Field of view            | 360°H, -7~52°V |
| Laser Class              | Class 1        |
| Wavelength               | 905nm          |
| Frame rate               | 10 Hz          |

## COLOR CAMERA

|              |              |
|--------------|--------------|
| N° of pixels | 12 Mpx       |
| Diagonal FOV | 210°         |
| Focal length | 1.26 mm      |
| Resolution   | 4000x3000 px |
| Sensor size  | 1 inch       |
| Pixel size   | 1.55 $\mu$ m |

## VISUAL CAMERA

|              |              |
|--------------|--------------|
| N° of pixels | 12 Mpx       |
| Diagonal FOV | 100°         |
| Focal length | 3.24 mm      |
| Resolution   | 4000x3000 px |
| Sensor size  | 1 inch       |
| Pixel size   | 1.55 $\mu$ m |

1. Environment dependent
2. Any CPU, any NVIDIA GPU

## SYSTEM

|                       |   |
|-----------------------|---|
| Relative accuracy     | 6 mm <sup>1</sup>   |
| Control point support | Ground & wall   |
| Data storage          | 512GB SSD   |
| Communication         | Wi-fi, USB type-c, LEMO   |
| Operating mode        | SLAM mode<br>Static mode (X-Whizz)                                      |
| Processing mode       | Real time processing<br>Post-processing with <i>GOpost</i> <sup>2</sup> |

## ELECTRICAL SPECIFICATION

|                        |                        |
|------------------------|------------------------|
| Power consumption      | 20W                    |
| System supply voltage  | 20V                    |
| Operating time         | 1.5 h (single battery) |
| Battery input voltage  | 5-20V                  |
| Battery output voltage | 10.8V                  |
| Battery capacity       | 3000mAh                |

## PHYSICAL SPECIFICATION

|                       |  |
|-----------------------|--|
| Weight                | 925 g (Without battery)<br>1450 g (With battery) |
| Size                  | 364.5 mm x 173.8 mm x 170 mm                     |
| Operating temperature | -20°C to +50°C (-4°F to 122°F)                   |
| Storage temperature   | -40°C to +70°C (-40°F to 158°F)                  |
| Operating humidity    | <95%   |
| Waterproof/Dustproof  | IP54   |

# ACCESSORIES

## RTK MODULE

Add RTK module to set your point cloud in a global coordinate system. It can also help the system, adding GNSS info to LIDAR and IMU in the SLAM algorithm. If the GPS does not have a satellite connection, such as indoors, the system will rely on LIDAR and IMU to locate itself.

### RECEIVER

|                                |  |
|--------------------------------|--|
|                                | GPS L1, L2   |
| Satellite Signals Tracked      | GLONASS L1, L2<br>GALILEO E1, E5b<br>BDS B1, B2      |
| Single Point Positioning (RMS) | Horizontal: 1.5 m<br>Vertical: 3.0 m                 |
| DGPS (RMS)                     | Horizontal: 0.4 m<br>Vertical: 0.8 m                 |
| RTK (RMS)                      | Horizontal: 1 cm + 1 ppm<br>Vertical: 1.5 cm + 1 ppm |
| Data Update Rate               | 20Hz   |
| Time Accuracy                  | 20ns   |
| Speed Accuracy (RMS)           | 0.03 m/s   |



## TELESCOPIC POLE

Hold the X70<sup>GO</sup> on the monopod for a stationary survey in key areas with the X-Whizz mode.

The quick-lock swivel system makes the pole quick and easy to extend to different heights, up to a maximum of 1,60 meters. Its handle ensures a firm, ergonomic grip during use: maximum efficiency and comfort are guaranteed.

