ModeXion

# Quick Start Guide and Precautions

www.modexion.com

## I Device Usage Instruction :

**01** Install the battery, CF card, antenna, and extension rod. Press and hold the power button for 3 seconds to power on the device; then press the power button again to turn on the LED indicator.



**02** Search MX-100 device via the WIFI, then enter the password "12345678". Next, open the Chrome browser and enter http://192.168.1.100:8080



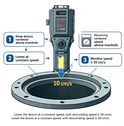

**03** Fill in information (such as manhole name, type, collection location, etc.). After completing these steps, you will be directed to the data collection interface.



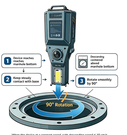

**04** The device is initially suspended round 50 cm above the manhole opening. The downward-looking camera covers the full manhole opening, then start data acquisition.



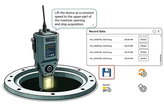

**05** Lower the device at a constant speed, with descending speed ≤ 10 cm/s.




**06** When the device reaches the manhole bottom, rotate it smoothly by 90°for better scanning.

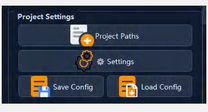



**07** Lift the device to manhole opening at constant speed. Stop acquisition and click "data-save" button. you may power off the device immediately or refresh the interface once the countdown finishes.

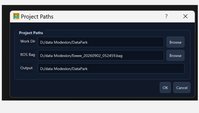



## II Software Processing :

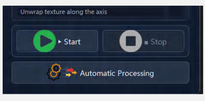
**01** Create a new folder within the desired directory. Click on "Project Paths"



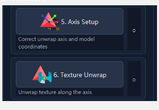

**02** Choose the folder created and locate select the.bag file.



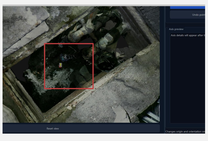

**03** Select "Start" to initiate the automatic calculation.



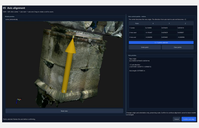

**04** After automatic modeling, choose "axis Alignment", select the axis center point and the axis orientation.




**05** Select the central point at the bottom.



**06** Select the axis direction for expansion.



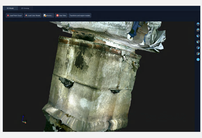
**07** Click the "Confirm Alignment" button.



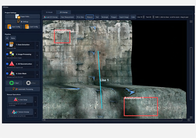

**08** Point cloud data:



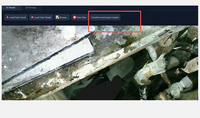
**09** 3D mesh Model



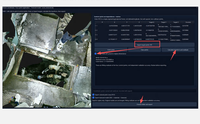
**10** 2D Unwrap Image and measure the defects



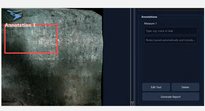
**11** Coordinate added and Conversion Export



**12** View the calculation results, then export the coordinate transformation model.



**13** Add project information and export the report




**14** The report can be customized based on the client's specific requirements and template specifications.




## III Precaution :

- When two manholes are far apart, power off and restart the device before use.
- Check battery status. Replace the battery when the red indicator flashes for low-power warning.
- Do not perform data acquisition under strong direct sunlight shining into the manhole.
- Most manhole bottoms are dim. Turn on the built-in light, and maximum brightness is recommended.
- Keep the device stable during acquisition. Operation with a telescopic pole is recommended.
- Minimum PC specification for data processing: Intel Core i9-13th Gen, 64 GB DDR5 RAM, RTX 4070 graphics card.