

Head Scanner



Head Scanner USB

Model : HSU-06

Overview

The Head Scanner USB is a non contact 3D head measuring device that uses 12 CCD cameras and 6 red semiconductor lasers to capture the full 3D shape of the head. This is achieved without occluding the back of the ear and under the ear thanks to the cross-sectional scanning method. Measurement time varies based on the size of the head to be measured, but in most cases is completed within 10 seconds.

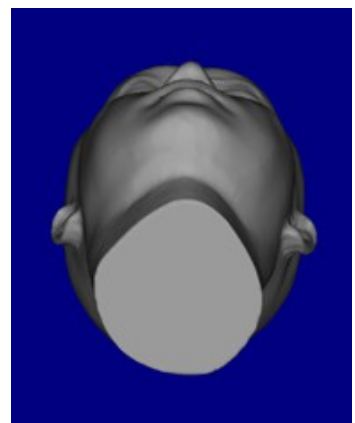
Acquired Data

The head shape data is saved as a proprietary 3D point cloud binary format. An optional software "File Converter" can be used to convert this binary format into commonly used CAD formats such as CSV, DXF, STL, OBJ.

To obtain anatomical feature points of the head (bone positions, etc) , landmark markers can be applied to the head. Up to 103 anatomical feature points may be placed and 26 measurements may be calculated. These measurements and shape data are then stored in the database.

Please use the following link for further details on the measurement items.

http://dl.iwl.jp/pdf_files/head_scanner_measurement_point_and_items_e.pdf



Function

1. Scan speed, Accuracy and Reliability

Head is scanned by the 30 mm/sec Scan speed, and the data accuracy is $\pm 1.0\text{mm}$, reliability is achieved for head measurement. This has earned the trust of firms related to head research & development for products such as custom made helmets and eyewear.

2. Open Eye Measurement

The Head Scanner USB uses the same Class 1 (JIS C 6802) lasers that are safe for open eye measurement. This allows for accurate measurement of pupil position.

3. Anatomical Landmark Point Acquisition

Using the landmark recognition function up to 103 anatomical feature points and 26 measurements can be made.

4. Safety Standards

The Head Scanner USB has undergone CE safety standards certification and marking.

Specification

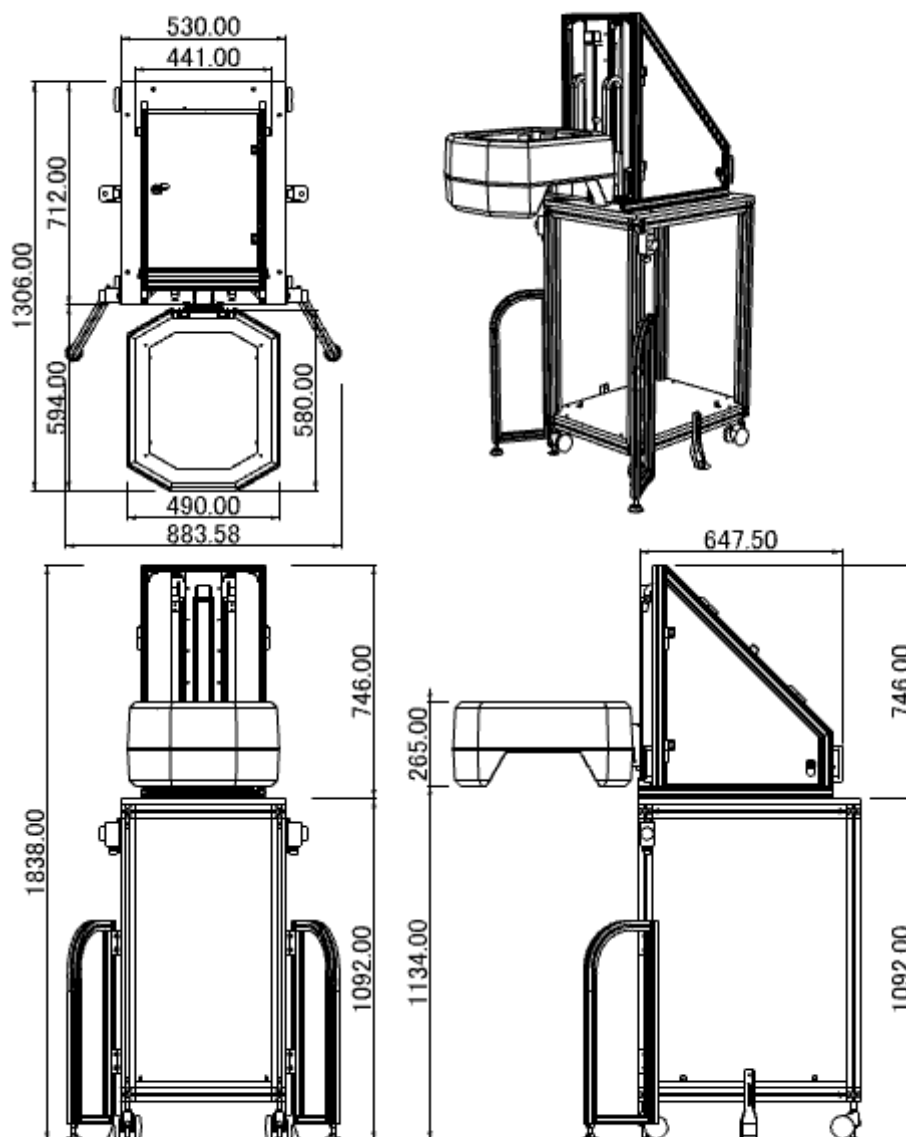
Scanner	
Type of Product	3D Head Scanning System
Product Name	Head Scanner USB
Product Model Code	HSU-06
Dimensions	645(W)×1306(D)×1838(H) mm
Scanner Head	490(W)×580(D)×265(H) mm
Power Supply	100-240V~ ±10% 50/60Hz (AC Adapter Included)
Power Consumption	DC24V 5A (120W max.)
Total Weight	75 kg
Safety Standard	CE, IEC 60825-1
Environment	
Temperature	15℃ ~ 40℃
Humidity	35% ~ 60%
Installation Location	Indoor Use Only (Avoid direct sunlight)
Scanning	
Scan Speed	30 mm/s (Approximately 10 seconds per head)
Error Allowance	1.0mm step : Y(W)-Z(D)=1mm、X(H)=1mm 0.5mm step : Y(W)-Z(D)=1mm、X(H)=0.5mm
Data Format	HBD (Proprietary Pound Cloud Binary Format)
Scan Area	320(W)×320(D)×400(H) mm
Conditions	
Scanning Target	Head, Landmark Stickers ※Reflective and glossy surfaces/items such as glasses, black hair, dark colored items might interfere with scanning. ※A head cap is required to accurately measure the top of the head.
Head Maximum Size	Within W=280mm, D=280mm

※The asterisked specifications are subject to change without notice.

PC Requirements	
OS	Microsoft Windows 10 (64 bit)
CPU	x86 compatible 2.0GHz or more (Multi-core CPU recommended)
Memory	2GB or more
Interfase	More than 2 ports of USB2.0 (USB Hub possible: Head scanner and Licence Key)
Screen Resolution	1024x×768 pixels or more (1280×800 pixels or more recommended)
Storage	20MB free space is needed for Head Scanner system installation. Approcimately 1MB per scan is also required.
Connecting Conditions	A host PC must be prepared seperately.
Accessories	
AC adapter, AC code (1.8m), USB hub、USB2.0 cable (2m), Calibration kit, USB license key, Head model	
Attached Software	
Measure	Core software application for 3D head shape measurement
Tester	Testing and diagnostic application for INFOOT Head Scanner USB calibration maintenance.
DB Controller	3D Head Scan Database Managment Application
Option Software	
File Converter	Application for converting proprietary head binary data format to commonly used CAD formats.

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Dimensions (Unit:mm)



Contact

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