

ICS 13.180
CCS A 25



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 44923-2024

Adult three-dimensional head models

成年人三维头部模型

Issued on: December 31, 2024

Implemented on: July 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed and coordinated by the National Technical Committee on Ergonomics Standardization (SAC/TC7).

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Introduction

The morphological surface of the head and face is relatively complex, and two-dimensional data cannot fully express the morphological and surface information of the head and face.

The head and face are very sensitive to comfort. It is difficult to optimize head and face products based on two-dimensional data, which not only affects the wearing experience of the product, but also affects the comfort of the product.

comfort, and may also bring safety risks.

This document is based on the second national human body measurement data from 2014 to 2018.

Based on the characteristics of the three-dimensional head and face size distribution and combined with the application of head and face size in head-mounted product design, a three-dimensional head image of an adult is given.

The head model series established in this document can be used for the design, verification and display of various head and facial products.

and molding to make it suitable for the head and face features of Chinese people, improving the comfort and safety of the product when worn. Adult 3D head model

1 Scope

This document provides the three-dimensional head typing and coordinate description of the three-dimensional head model for adults (18 to 70 years old).

This document applies to the specification design and selection of head and face wearable products such as helmets, masks, gas masks, glasses, AR/VR products, etc.

2 Normative references

GB/T 5703-2023

ISO 7250

3 Terms and definitions

The terms and definitions defined in GB/T 5703-2023 and the following apply to this document.

3.1 head length

The straight-line distance between the glabella point and the occipital point.

3.2 Headbreadth

The maximum width of the head above the ears measured perpendicular to the midsagittal plane.

3.3 head circumference

The maximum horizontal circumference above the glabella through the occipital point.

3.4 Total head height

The vertical distance from the top of the head to the submental point.

3.5 Surface length

The distance between the nose bridge point and the chin point.

3.6 auricularheight

The vertical distance from the vertex of the head to the tragus point.

3.7 Vertex-ectocanthionheight

The vertical distance from the top of the head to the outer corner of the eye.

3.8 reference plane

The head was positioned in the Frankfurt plane, a horizontal plane passing through the glabella.