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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 33265-2025

Replacing GB/T 33265-2016

Educational robots - Safety requirements and testing methods

教育机器人 安全要求及测试方法

Issued on: October 5, 2025 **Implemented on: May 1, 2026**

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Standardization Administration of the PRC

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Foreword

This document conforms to GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting is scheduled. This document replaces GB/T 33265-2016 "Safety Requirements for Educational Robots". Compared with GB/T 33265-2016, the main differences are in the structural design. Aside from editorial changes, the main technical changes are as follows:

a) The scope has been changed (see Chapter 1, Chapter 1 of the.2016 edition);

b) The terms and definitions such as "robot", "mobile educational robot", "articular educational robot", and "hybrid educational robot" have been removed. (See sections 3.1, 3.3, 3.4, and

3.5 in the.2016 edition);

c) The terminology and definition of "educational robot" have been changed (see 3.1,

3.2 in the.2016 edition);

d) Added terms and definitions such as "risk," "harm," "safety-related software," and "robot ethical safety" (see 3.2, 3.3, 3.4, and 3.5);

e) Added "Mechanical Safety Requirements" (see 4.2) and revised "Protection of Exposed Components" (see 4.2.4,

4.9 in the.2016 edition);

f) Added "Electrical Safety Requirements" (see 4.3), changed "Power Supply Safety" (see 4.3.1,

4.2 in the.2016 edition), and changed "Electrical..." Insulation and electrostatic protection (see 4.3.2,

4.7 in the.2016 edition), and changed "Electrical components, pneumatic components and hydraulic components" (see Version 4.3.3 (

4.5 in the.2016 version) changed "Overheating, Heat Resistance and Fire Protection" (see 4.3.4,

1 Scope

GB/T 33265-2025 is the Chinese national standard covering the robot a child handles - the mechanical hazards of pinch points and small parts, the battery and charging safety, the material and surface temperature limits, the software safety of a device that moves on its own, and the content and data protection. Issued on 5 October 2025, it has been in force since 1 May 2026, replacing GB/T 33265-2016.

This document specifies the safety requirements and usage information for educational robots, and describes the corresponding testing methods. This document applies to the design, production, sales, management, and use of educational robots. This document does not apply to AI-powered educational products without joints or robots whose product positioning is not educational.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB 1002 Types, basic parameters and dimensions of single-phase plugs and sockets for household and similar purposes

GB/T 2423.5 Environmental testing - Part

3 Operation

GB/T 39785-2021 Methods for Mechanical Safety Assessment and Testing of Service Robots

GB/T 40013-2021 Electrical safety requirements and test methods for service robots

GB/T 41393-2022 Safety Requirements and Test Methods for Entertainment Robots

13 Determination of the coefficient of friction of test surfaces

GB 31241 Safety Technical Specification for Lithium-ion Batteries and Battery Packs for Portable Electronic Products

GB/T 36008-2018 Robots and Robotic Equipment - Collaborative Robots

GB/T 36530-2018 Safety requirements for robots and robot-equipped personal assistant robots

GB/T 37284-2019 General Standard for Electromagnetic Compatibility of Service Robots. Emission Requirements and Limits

GB/T 38124-2019 Service Robot Performance Test Methods

GB/T 38244-2019 General Principles of Robot Safety

GB/T 38260-2019 Functional Safety Assessment of Service Robots

GB/T 38834.1-2020 Performance Specifications and Test Methods for Service Robots - Part