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

GB/T 45502-2025

General requirements for information security of service robots

服务机器人信息安全通用要求

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1 Scope

This document specifies the information security requirements and testing methods for service robots.

This document applies to the design, implementation, evaluation and reinforcement of service robot information security.

For reference use of special robots and medical robots.

Note. This document applies to all types of service robots, mainly including personal/household service robots and public service robots.

2 Normative references

GB/T 12643-2025

GB/T 25069-2022

GB/T 35273

3 Terms and definitions

The terms and definitions defined in GB/T 12643-2025 and GB/T 25069-2022 and the following apply to this document.

3.1 service robot

A robot that performs useful tasks for humans or equipment, for personal or professional use.

Note 1. Personal use tasks include handling or providing objects, transporting, physical support, providing directions or information, grooming, cooking and food handling, and cleaning.

Note 2. Tasks for professional use include inspecting, monitoring, handling items, transporting people, providing instructions or information, cooking and food handling, and cleaning.

[Source. GB/T 12643-2025, 3.7]

3.2 debug interface

Physical interfaces are reserved for robot development, maintenance, diagnosis, etc.

3.3 Operating terminal

A computer device used in mobile communication with a service robot, having an open operating system capable of providing an application development interface.

system, and can install and run third-party application software.

3.4 host system

Core software that coordinates the various functions of the robot, such as navigation, perception, decision-making, interaction, etc., to ensure that the robot can effectively perform its tasks software and hardware platforms.

Note. The host system includes modules such as the service robot body, operating system and sensors.

3.5 credential

An identity representation used for authentication.