

**The Japanese Industrial Standards Committee's subcommittee
approved the establishment of the
Japanese Industrial Standards (JIS) for personal care robots
– Following the course of international safety standards,
CYBERDYNE is leading the development of national standards –**

Following the establishment of international safety standards for personal care robots ISO 13482:2014^{*1}, CYBERDYNE, Inc. (the “Company”) has been leading the development of more specific and effective national safety standards since July 2013. The resulting draft of the “JIS B 8446” series of standards were deliberated on and approved^{*2} at the 5th Technical Committee on Industrial Machinery on December 10 by the Japanese Industrial Standards Committee's First Subcommittee. After public comments are collected, the draft will be enacted as Japanese Industrial Standards (“JIS”).

The “JIS B 8446” series, approved for enactment, is composed of the following three parts, and the Company was involved in the creation of all of these drafts. Furthermore, the Company participated as a member of the drafting committee of part 1 and 2.

- JIS B 8446-1 Safety requirements for personal care robots – Part 1: Static stable mobile servant robot with no manipulator
- JIS B 8446-2 Safety requirements for personal care robots – Part 2: Low power restraint-type physical assistant robot
- JIS B 8446-3 Safety requirements for personal care robots – Part 3: Self-balancing person carrier robot

Since its founding as a University of Tsukuba venture company in 2004, the Company has worked on the development and social implementation of the robot suit HAL®, fully utilizing innovative technology while maintaining safety as its top priority. Making use of its experience and know-how, and with the support of the New Energy and Industrial Technology Development Organization (“NEDO”)’s Living Assistance Robot Practical Application Project^{*3}, the Company has participated in the International Organization of Standardization (“ISO”)’s working group (ISO/TC 184/SC 2/WG7) to establish ISO 13482 since 2010. Receiving an ISO/DIS 13482 certificate for the HAL for Living Support (Lower Limb Type) in February 2013, and ISO 13482 certificates for both the HAL for Labor Support (Lumbar Type) and HAL for Care Support (Lumbar Type) in November 2014, the Company has taken a leading role in the establishment and dissemination of safety standards. Based on the knowledge gained from these experiences, the



Company has especially led the drafting of the “JIS B 8446-2 (low power restraint-type physical assistant robot)”, which led to the approval for this enactment.

The Company will continue to actively contribute to the dissemination of the “JIS B 8446” series and to the international standardization of safety requirements, and contribute to the development of a global market for safe and reliable personal care robots.

***1 About ISO 13482:2014**

ISO 13482:2014 “Robots and robotic devices – Safety requirements for personal care robots” is the only officially issued international standard related to safety for personal care robots from the ISO. The Company has participated in the standardization proposal activities of ISO 13482.

***2 About the approval of the “JIS B8446” series draft**

The approval is noted in the Japanese Industrial Standards Committee’s home page <https://www.jisc.go.jp/jisc/index.html>, “Conference Handout Materials” → “Technical Committee for Industrial Machinery” → “H27.12.10 Summary of the 5th Proceeding” Section 6. (Japanese Only)

***3 About NEDO’s Living Assistance Robot Practical Application Project**

The Living Assistance Robot Practical Application Project was commissioned by the National Research and Development Agency’s NEDO conducted from 2009 to 2013, for the development of safety technology of living support robots and safety verification methods. The Company was entrusted with the research and development aspect “Development of wearable (close contact) living support robots with implemented safety technology” of the project, and has introduced the results to the robot suit HAL®, as well as to the Company’s standardization activities.

Company Profile:

Company Name	CYBERDYNE Inc.
Headquarters	2-2-1, Gakuen-Minami, Tsukuba, Ibaraki Prefecture, 305-0818, Japan
Capital Stock	JPY 16.511 Billion
Founded	June 24 th , 2004
Business	Robot suit development, manufacture, sales
Stock Code	7779

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