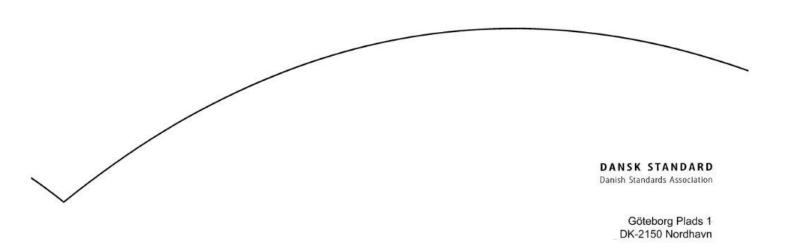
2017-02-20

Sundhedsinformatik – Kommunikation med personligt sundhedsudstyr – Del 10442: Udstyrsspecifikation – Styrketræningsudstyr

Health informatics – Personal health device communication – Part 10442: Device specialization – Strength fitness equipment (ISO/IEEE 11073-10442:2015)



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European foreword

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Part 10442:

Device specialization — Strength fitness equipment

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Health informatics—Personal health device communication

Part 10442: Device specialization— Strength fitness equipment

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Approved 26 September 2008

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Abstract: Within the context of the ISO/IEEE 11073 family of standards for device communication, this standard establishes a normative definition of the communication between personal strength fitness devices and managers (e.g., cell phones, personal computers, personal health appliances, and set top boxes) in a manner that enables plug-and-play interoperability. It leverages appropriate portions of existing standards including ISO/IEEE 11073 terminology and information models. It specifies the use of specific term codes, formats, and behaviors in telehealth environments restricting optionality in base frameworks in favor of interoperability. This standard defines a common core of communication functionality for personal telehealth strength fitness devices. In this context, strength fitness devices are being used broadly to cover strength fitness devices that measure musculo-skeletal strength-conditioning activities.

Keywords: medical device communication, personal health devices, strength fitness equipment

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Introduction

This introduction is not part of IEEE Std 11073-10442-2008, Health informatics—Personal health device communication—Part 10442: Device specialization—Strength fitness equipment.

ISO/IEEE 11073 standards enable communication between medical devices and external computer systems. This document uses the optimized framework created in IEEE Std 11073-20601^a and describes a specific, interoperable communication approach for strength fitness equipment. These standards align with and draw on the existing clinically focused standards to provide easy management of data from either clinical or personal health devices.

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^a For information on references, see Clause 2.

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Health informatics—Personal health device communication

Part 10442: Device specialization— Strength fitness equipment

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1. Overview

1.1 Scope

Within the context of the ISO/IEEE 11073 family of standards for device communication, this standard establishes a normative definition of the communication between personal strength fitness devices and managers (e.g., cell phones, personal computers, personal health appliances, and set top boxes) in a manner that enables plug-and-play interoperability. It leverages appropriate portions of existing standards, including ISO/IEEE 11073 terminology and information models. It specifies the use of specific term codes, formats, and behaviors in telehealth environments restricting optionality in base frameworks in favor of interoperability. This standard defines a common core of communication functionality for personal telehealth strength fitness devices. In this context, strength fitness devices are being used broadly to cover strength fitness devices that measure musculo-skeletal strength-conditioning activities.

1.2 Purpose

This standard addresses a need for an openly defined, independent standard for controlling information exchange to and from personal health devices and managers (e.g., cell phones, personal computers, personal health appliances, and set top boxes). Interoperability is the key to growing the potential market for these devices and to enabling people to be better-informed participants in the management of their health.

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Part 10442: Device specialization—Strength fitness equipment

1.3 Context

See IEEE Std 11073-20601[™] for an overview of the environment within which this standard is written.

This document, IEEE Std 11073-10442 defines the device specialization for the strength fitness device, being a specific agent type, and it provides a description of the device concepts, its capabilities, and its implementation according to this standard.

This standard is based on IEEE Std 11073-20601, which in turn draws information from both ISO/IEEE 11073-10201:2004 [B3] and ISO/IEEE 11073-20101:2004 [B4]. The medical device encoding rules (MDER) used within this standard are fully described in IEEE Std 11073-20601.

This standard reproduces relevant portions of the nomenclature found in ISO/IEEE 11073-10101:2004 [B2] and adds new nomenclature codes for the purposes of this standard. Between this standard and IEEE Std 11073-20601, all required nomenclature codes for implementation are documented.

NOTE—In this standard, IEEE Std 11073-104zz is used to refer to the collection of device specialization standards that utilize IEEE Std 11073-20601, where zz can be any number from 01 to 99, inclusive.²

2. Normative references

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IEEE Std 11073-20601TM-2008, Health informatics—Personal health device communication—Part 20601: Application profile—Optimized exchange protocol.^{3, 4}

See Annex A for all informative material referenced by this standard.

3. Definitions, acronyms, and abbreviations

3.1 Definitions

For the purposes of this standard, the following terms and definitions apply. The *Authoritative Dictionary of IEEE Standards Terms* [B1] should be referenced for terms not defined in this clause.

- **3.1.1 agent:** A node that collects and transmits personal health data to an associated manager.
- **3.1.2 class:** In object-oriented modeling, a class describes the attributes, method, and events that objects instantiated from the class utilize.
- 3.1.3 compute engine: See: manager.
- **3.1.4 device:** A term used to refer to a physical apparatus implementing either an agent or a manager role.

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