

INTERNATIONAL STANDARD

**Wearable electronic devices and technologies -
Part 403-1: Test method of surface electromyography sensors on forearm and
hand for wearable applications**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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The text of this International Standard is based on the following documents:

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Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 63203 series, published under the general title *Wearable electronic devices and technologies* can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

1 Scope

This document specifies test methods for surface electromyography (sEMG) sensors by evaluating the quality of sEMG signals obtained from contracting the muscles of the forearm and hand for wearable applications. It is applicable to sEMG sensors that are used to decipher movement intentions and use them as control signals in situations such as virtual reality, game, unmanned aerial vehicles (UAV), robot control, and home automation. This document does not apply to sEMG sensors intended for medical diagnosis or treatment. For medical devices, national requirements can apply.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050-702:1992, *International Electrotechnical Vocabulary (IEV) - Part 702: Oscillations, signals and related devices*
IEC 60050-702:1992/AMD1:2016
IEC 60050-702:1992/AMD2:2016
IEC 60050-702:1992/AMD3:2017
IEC 60050-702:1992/AMD4:2018
IEC 60050-702:1992/AMD5:2019
IEC 60050-702:1992/AMD6:2021