
**Flight control system for civil small
and light multicopter unmanned
aircraft system (UAS) — General
requirements**

*Système de contrôle de vol pour les multicoptères civils télépilotés
petits et légers — Exigences générales*





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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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This document was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 16, *Unmanned aircraft systems*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Flight control system for civil small and light multicopter unmanned aircraft system (UAS) — General requirements

1 Scope

This document specifies the composition, functional and performance requirements of flight controls for civil multicopter unmanned aircrafts (UAs) with the maximum take-off mass (MTOM) less than or equal to 25 kg corresponding to unmanned aircraft systems (UAS) at levels I, II, III and IV as graded in ISO 21895 which does not include fully autonomous flights.

The flight control system in this document consists of flight control unit, navigation unit, fault diagnosis and management unit, flight planning, flight recorder, etc. This document is applicable to the design and manufacture of other UA flight control systems or subsystems.

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.

ISO 21384-4, *Unmanned aircraft systems — Part 4: Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21384-4 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

attitude control mode

flight control system mode that controls the attitude of the aircraft, but not the position of the aircraft

3.2

hover state

function or mode of keeping the position and height of an aircraft relatively unchanged in position mode without receiving any external control instructions

4 Abbreviated terms

AGL	above ground level
C2	command and control
FCS	flight control system
GNSS	global navigation satellite system
ICAO	International Civil Aviation Organisation