

# ISO/IEC 5927:2024-02 (E)

**Computer graphics, image processing and environmental data representation -  
Augmented and virtual reality safety - Guidance on safe immersion, set up and  
usage**

---

## Contents

	Page
<b>Foreword .....</b>	<b>.v</b>
<b>Introduction .....</b>	<b>vi</b>
<b>1 Scope .....</b>	<b>1</b>
<b>2 Normative references .....</b>	<b>1</b>
<b>3 Terms, definitions and abbreviated terms .....</b>	<b>1</b>
<b>3.1 Terms and definitions .....</b>	<b>1</b>
<b>3.2 Abbreviated terms .....</b>	<b>3</b>
<b>4 AR/VR technologies .....</b>	<b>4</b>
<b>4.1 General .....</b>	<b>4</b>
<b>4.1.1 AR enabling technologies .....</b>	<b>4</b>
<b>4.1.2 VR enabling technologies .....</b>	<b>4</b>
<b>4.2 Health and safety considerations .....</b>	<b>5</b>
<b>5 Safe installation/set-up .....</b>	<b>6</b>
<b>5.1 General .....</b>	<b>6</b>
<b>5.2 General risk factors to consider with safe installation/set up of AR and VR .....</b>	<b>6</b>
<b>5.3 Guidance on safe installation in the enterprise .....</b>	<b>7</b>
<b>5.3.1 General .....</b>	<b>7</b>
<b>5.3.2 Guidance on safe installation/set up of AR in the enterprise .....</b>	<b>7</b>
<b>5.4 Guidance on safe installation/set up of VR in enterprise .....</b>	<b>8</b>
<b>6 Approach to risk management for usage in AR and VR environments .....</b>	<b>8</b>
<b>6.1 General .....</b>	<b>8</b>
<b>6.2 Identification of risk sources .....</b>	<b>8</b>
<b>7 Safe usage .....</b>	<b>9</b>
<b>7.1 General risk factors to consider with safe usage of AR/VR .....</b>	<b>10</b>
<b>8 Immersion .....</b>	<b>10</b>
<b>8.1 General .....</b>	<b>10</b>
<b>8.2 Introduction to safe usage time .....</b>	<b>11</b>
<b>8.3 Potential risks around immersion time .....</b>	<b>11</b>
<b>8.4 Content that minimizes immersion issues .....</b>	<b>12</b>
<b>8.5 User training .....</b>	<b>12</b>
<b>8.6 Factors of relevance when determining immersion time by industry and sector .....</b>	<b>13</b>
<b>9 Reporting requirements .....</b>	<b>14</b>
<b>9.1 General .....</b>	<b>14</b>
<b>9.2 Reporting of hardware and equipment .....</b>	<b>14</b>
<b>9.3 Reporting of AR/VR device and content software .....</b>	<b>14</b>
<b>9.4 Reporting of AR/VR activity .....</b>	<b>14</b>
<b>9.5 Reporting of data for individual users .....</b>	<b>15</b>
<b>9.6 Reporting of screening and/or exclusion criteria for AR/VR usage .....</b>	<b>15</b>
<b>9.7 Reporting of incidents .....</b>	<b>15</b>

<b>10</b>	<b>Consideration of ethical issues in AR/VR .....</b>	<b>15</b>
10.1	General .....	15
10.2	Privacy and user data .....	15
10.3	Inclusion and access .....	16
10.4	Children and vulnerable populations .....	16
10.5	Online bullying and harassment .....	17
10.6	Societal impact .....	17
	<b>Annex A (Informative) Form 1: AR/VR Usage: Data collection form .....</b>	<b>18</b>
	<b>Annex B (Informative) Form 2: AR/VR Usage: Incident reporting form .....</b>	<b>20</b>
	<b>Annex C (Informative) Cleanliness in XR .....</b>	<b>22</b>
	<b>Bibliography .....</b>	<b>25</b>