

Annex. Generated audios descriptions. Details of general sound sources characteristics are provided in the description box as well as general mixing treatment for each of the noise soundscape audios.

Soundscape audio	Description
Airport	This soundscape recreates environmental noise, with main frequencies between 800 Hz and 5000 Hz and levels ranging from 75 to over 90 dBA, which can cause dangerous cardiovascular and mental health effects in nearby populations [1]. The scene was created to emulate the experience of a person walking from the boarding gate to the aircraft, with noises such as airport ambiance, aircraft takeoff, an onboard captain announcement, and the noise of the plane in the flight.
Car Traffic	Environmental soundscape with noise levels from 70 to 100 dBA and peaks over 120 dBA, spanning 50 to 10,000 Hz, leading to stress, sleep disturbances, and cardiovascular issues. Simulated from a sidewalk perspective with overlapping traffic layers to replicate urban density [2–7].
Carpentry	Carpentry workshop sound environment with noise levels emphasizing high-frequency content around 2 kHz, inducing NIHL, tinnitus, and auditory fatigue; mixed using EQ, dynamic control, and spatial placement to present a realistic workshop environment and sensitize to occupational noise risk [8].
Children’s Party	Recreational soundscape with noise levels exceeding 100 dBA and frequencies between 250–8,000 Hz, causing stress, irritability, and cognitive problems in children. Built with layered crowd and children’s play sounds, enhanced with spatial effects [9–11].
Concert Hall	This recreational and occupational soundscape portrays a classical concert hall where musicians, especially brass and percussion players, face noise levels exceeding 85 dB and frequencies ranging from 100 Hz to 10,000 Hz, which can lead to long-term hearing loss, particularly in the 4000–6000 Hz range [12]. The mix layers of two orchestral tracks and one of applause to recreate a performance segment, adding reverberation to simulate the real reverberation of a concert hall.
Conference	Conference hall is an environmental and occupational soundscape where noise levels reach up to 65.5 dB, exceeding all recommended standards (25–35 dB), and frequencies ranges from 500 Hz to 4,000 Hz, impacting speech clarity and causing temporary hearing strain and stress [13]. The mix recreates a walk through a convention with distant speech and applause, capturing acoustic distractions and background noise that reduce auditory comfort.
Construction	Occupational or environmental soundscape exceeding 100 dBA, with peaks of 130 dBA, and frequencies from 25 Hz to 8 kHz, leading to NIHL, cardiovascular issues, and psychological distress. Built with layered machinery and alternating foreground tool sounds, processed with spatial panning and EQ [3,14–20].
Dentist	Occupational soundscape exceeding 90 dBA, with frequencies from 500 Hz to 12 kHz, causing NIHL, tinnitus, stress, and communication difficulties. Designed from a patient’s chair perspective using dental tool noises processed with EQ, panning, and reverb [21–25].
Hairdryer	This environmental and occupational soundscape ranges from 60 to 90 dB(A) and reflects high frequencies up to 17.8 kHz, with high-pitched tonal components contributing to hearing fatigue and discomfort, especially in enclosed spaces (Huang & Zheng, 2022; Lahaye, 2022). The mix layers ambient client conversation with varied hairdryers positioned throughout the salon.
Urban ambience	Environmental soundscape exceeding 100 dBA, with frequencies from 500 to 4,000 Hz, contributing to stress, sleep disturbances, and cardiovascular issues. Built to simulate

	walking through a busy market or city plaza, using binaural panning, fades, and ambient layering [26–30].
Motorcycle road	This environmental soundscape ranges levels from 55 dB to 94 dB and frequencies spectrums between 1000–8000 Hz, causing risks of temporary or permanent hearing loss due to prolonged exposure, especially for gig economy riders [31]. The mix recreates a full ride experience, layering engine noise, wind turbulence, voices, and urban traffic to reflect the rider’s continuous and high-intensity noise environment.
Nightclub	Depending on perspective, this soundscape can be recreational, environmental, or occupational. With noise levels from 90-105 dBA and frequencies between 30 Hz to 4,000 Hz, it causes NIHL, tinnitus, and long-term auditory damage. Built with bass-heavy music and crowd sounds, using EQ, spatial panning, delay, and reverb [32–35].
Car races	Recreational soundscape with noise levels from 95-140 dBA and frequencies from 100 Hz to 10 kHz, causing NIHL, tinnitus, and auditory fatigue. Mixed using EQ, simulated Doppler effects, binaural panning, and reverb to simulate a stadium environment [36–39].
Rock concert	Rock concert spaces that reach 102 dBA for 15 minutes, with the highest points exceeding 120 dB(C) and the most prominent energy content between 63 Hz and 4 kHz, contribute to NIHL, stress, and mental fatigue, enhanced by low bass output and necessitating protective sound procedures [40,41].
Stadium	This recreational soundscape recreates stadium noise, where levels peak between 123 and 140 dB and dominant frequencies range from 400 Hz to 2.5 kHz, especially around 800 Hz, causing risks of noise-induced hearing loss and impaired on-field communication [42]. The mix simulates a one-minute fan perspective through layered crowd reactions, chants, and band sounds, escalating in intensity to reflect the moments of gameplay and a final goal celebration.
Shooting Camp	Shooting range ambient of peak noise levels up to 133.6 dB(C) and predominate frequencies within the range of human hearing, inducing NIHL, tinnitus, and physiological stress; mixed with EQ, dynamic range control, and spatial placement to simulate an indoor range and elicit concern for the hazards of noise exposure [43].
School Garden	School garden soundscape with noise levels above 80 dB(A) and frequency within human hearing sensitivity range, inducing fatigue, tension, and decreased concentration; mixed soundscape using EQ, dynamic control, and spatial placement to reconstruct a recess atmosphere and create awareness of early noise education and control [44].
Snores	Snoring soundscape with sound intensities up to 70 dB(A) and dominant frequencies below 500 Hz, causing sleep disturbance, daytime sleepiness, and stress; combined with EQ, dynamic range compression, and spatial positioning to simulate nighttime exposure and enhance sensitivity to its sound and health impacts [45,46].

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