Spray Paint Risk	Explanation
Lens Contamination and Image Distortion	If the lens is not adequately protected during the spray-painting process, overspray or mist may adhere to the lens surface and compromise image quality. If the spray material contains corrosive components, it may damage the lens coating and cause increased glare and noise.
Impact on Heat Dissipation	The device's outer shell is typically designed with ventilation holes or specific materials to ensure heat dissipation. If a sprayed coating blocks these vents, the camera may operate at high temperatures for extended periods, which can accelerate chip aging or lead to malfunctions.
Impact on Audio Volume and Quality	The outer shell of the camera contains a microphone (MIC) and speakers. Spray paint may block these components, leading to abnormal sound transmission or reception.
Infrared Night Vision Failure	Many cameras rely on infrared illumination for night vision. If spray paint obstructs the infrared LED lights, the infrared night vision feature may not take effect and the video images may become blurry or turn completely black.
Impact on PIR Detection	For some cameras, Passive Infrared (PIR) Sensors are required to trigger detection. If the sensor becomes contaminated with spray paint, it may cause detection failures, particularly in battery-operated models.
Shell Corrosion Risk	Low-quality spray paint may chemically react with the camera's outer shell, causing it to become brittle, crack, or deform. This can undermine the device's waterproof and dustproof capabilities.
Risk of Blocked Waterproof Vent Membrane	For outdoor use, the camera's outer shell is typically equipped with a waterproof breathable membrane. If spray paint is applied to this membrane, it may block the ventilation. When there is a drastic humidity difference between the inside and outside of the camera, condensation is more likely to form on the lens and blur images. Additionally, with the membrane clogged, heat will accrue during

operation, and the internal air pressure will exceed external pressure. In this case, the speaker may not work correctly.