MaskZero Technical Overview

Active respiratory protection for pandemic readiness.

A patented personal protective device designed to capture and neutralize viral pathogens at the point of breath using contained UV-C technology.

FDA status: Regulatory status available under NDA or partner request.

Problem

Pandemic readiness depends on respiratory protection that buyers can evaluate through evidence, regulatory clarity, manufacturing readiness, and operational fit.

Hospitals, government preparedness teams, long-term care operators, and strategic partners need current status language rather than vague future approval claims.

Mechanism of action

1. Air enters the device.

2. Pathogens are captured or exposed within the airflow path.

3. Contained UV-C neutralizes viable virus inside the device architecture.

4. Cleaned airflow supports wearer protection and source control, subject to final testing, labeling, and regulatory review.

Test methodology

Testing should document organism or surrogate selection, airflow conditions, chamber geometry, UV-C wavelength, irradiance, dwell time, dose calculation, controls, replication, and pass/fail criteria.

No public quantitative viral neutralization percentage is published in this overview.

Safety architecture

The safety architecture is intended to contain UV-C energy inside the device path and away from user skin and eyes.

Final safety language must be supported by device testing, instructions for use, risk

management documentation, and regulatory review.

Regulatory pathway

MaskZero is positioned for Class II medical device pathway diligence.

FDA status: Regulatory status available under NDA or partner request.

This public overview does not claim FDA clearance, approval, or authorization.

Patent position

U.S. utility patent granted. Patent materials support licensing, manufacturing, distribution, and investor diligence conversations but do not replace freedom-to-operate review.

Manufacturing status

Small-batch manufacturing is the near-term readiness path for engineering validation, partner pilots, safety verification, and controlled buyer diligence.

Scale-up diligence should review component sourcing, quality systems, assembly, cleaning, labeling, service, and stockpile requirements.

Intended use cases

Hospitals: transmission risk reduction, staff safety, pandemic readiness, and pilot discussions.

Government / Defense: stockpile readiness, emergency preparedness, off-grid use, and surge planning.

Long-Term Care: protecting high-risk populations during respiratory outbreak conditions.

Strategic Partners: licensing, manufacturing, and distribution.

Investors: IP position, market need, regulatory path, milestones, and evidence package readiness.