NOVEL SCENT DELIVERY DEVICE

MECHANICAL ENGINEERING

Scent delivery device that allows users to switch rapidly between different scents being released into the air without risk of cross-contamination.

TECHNOLOGY TYPE
Device
Scent Delivery
Virtual Reality

STAGE OF DEVELOPMENT
- Prototype in use for olfactory research.
- Optimization for commercial use still required.

IP PROTECTION
Provisional Patent Filed

TECHNOLOGY SUMMARY

Experimental neuroscience and psychophysics often study neural and behavioral responses to scents. In these studies, the subject must be exposed to various scents, but switching from one scent to another takes time.

The proposed scent delivery device switches between scents quickly without mixing or cross-contamination. Multiple scent containing tubes that can house a liquid or solid scent are mounted on the device. Pressurized air expels scents from their tubes to the subject.

The proposed device was developed for applications in research, but also has the potential for use in single-user entertainment experiences. Scent delivery technology is being used more frequently in entertainment, but most existing technologies emit scent into the general airspace, which spreads the scent throughout the entire room, allowing scents to mix and diminishing the overall effect. The proposed device, with its scent switching capabilities and ability to deliver scent individually, has strong potential for gaming, movies, and virtual reality applications where each level or scene has a unique smell.

FEATURES AND BENEFITS

- Provides rapid delivery of multiple different scents to a subject.
- Prevents mixing and cross-contamination of scents.
- Delivers scents in series, simultaneously, or in various combinations.
- Allows switching to a new set of scents without need for new tubing.
- Utilizes industry standard sizing for simple operation.

INVENTOR PROFILE

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