Electronic noses

Imitating olfactory receptors

Call to Action !!!

We are looking for individuals with an innovative mindset and a background in physics, biomedical and mechanical engineering.

If you are interested, please reach out to entrepreneur@hightechxl.com

Positive Impact

To have a technology, which is less subjective to fatigue and provides consistent information about odors.

Problem

Volatile organic compounds (VOCs) are very common and exist in variety of settings and products, be it house mold, pumped gas, dry cleaned clothes and many more.

It is crucial to detect these VOCs, as many of these are toxic and possess danger to human health and environment.

Initial Validation

A handheld device is available that uses a flow cell and reader for the detection. The device is already tested for certain applications.

Solution

Solution is in creating a device that is easy to use, handheld and extremely sensitive compared to humans, bees and dogs in detecting widely present VOCs.

Technology

→ Laboratory synthesised insect olfactory receptors are available.

→ Receptor models and data to select combinations of insect receptors.

→ Data collection and interpretation using machine learning models.

Potential Markets

It is a platform technology with many possible applications such as:

→ Security

→ Healthcare

→ Agriculture

→ Environment monitoring

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