

# Micro Gas Chromatograph Sensing

Detecting gaseous (bio-) markers in the air

## PROBLEM

Gas Chromatography has great potential but has always been held back by the ease of use, size, and cost of the machine.

Sampling and waiting a week or more for results is often not fast enough rendering Gas Chromatography difficult to be used in field where you want to detect outside a of a few selected individual gasses (like CO<sub>2</sub>, NH<sub>3</sub>, etc.).

The current usability is very limited in fields such as agriculture, food processing or food transportation.

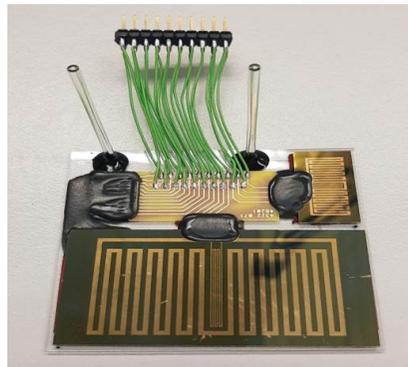
## Potential Markets

### Beachhead market

Horticulture  
Animal Husbandry  
Food transportation

### Growth market

Waste management  
Food processing  
Cosmetic industry



## MISSION & VISION

*Improving plant, animal and human lives through on site gas detection.*

## Initial Validation

The technology is actively being developed by Philips and support from Philips will be available to the venture.

So far the technology has been developed Gas Chromatographs in various sizes, proving the selectivity and effectivity up to the **parts per billion level**.

Furthermore the Micro Gas Chromatograph is being developed to fit multiple use cases.

## SOLUTION

Philips is developing a Micro Gas Chromatography that will be reduced to the size of a match box, enabling a low cost, real time (& on sight), distributed and selective sampling of air.

When matched with the right integration and detection software, this Micro Gas Chromatography device will enable users without years of lab experience to detect volatile gasses that impact their products, their crops, their animals, or themselves for a fraction of the cost.

## TECHNOLOGY

Based on an innovative solution, the Micro Gas Chromatograph is able to sample air and flow that through the column to detect a wide range of VOC's. The sensor at the end of the device will then plot out the compounds that have been detected. By placing the technology on sight, the technology will be able to detect gasses throughout the day.

## Call to action

We are looking for co-founders to bring this technology to the market. We are looking for technical- and business-people with experience in Gas Chromatography. Furthermore, we are looking for chemical scientists and scientists, bio-engineers and business developers.

Are you interested? Reach out to:  
[Info@hightechxl.com](mailto:Info@hightechxl.com)

