

# Purebreathe Nasal

A nasal air filter that prevents airborne allergy symptoms

In collaboration with Lifelab and designer Kunal Sethi



Purebreathe Nasal is one of two final year major projects exploring potential innovative personal air filtering products for the Chinese market. Final year Industrial Design student Kunal Sethi worked closely with the development team at Lifelab to find a solution to this area. The initial concept evolved into a filter which was designed specifically for the nose targeting hay fever sufferers as an alternative drug free treatment. The project team is currently exploring commercialisation options using the links that were made with specialist material suppliers involved in the development stage of the project.

Building on earlier short term projects with Life-lab, a University spin-out company led by Professor Alison McConnell, the collaboration moved up a gear setting up briefs for four separate final year student projects. The projects focused on concept development of health and fitness products for global markets based on innovative ideas and strong scientific evidence.

## Brief

The air that we breathe is continuously polluted with chemicals as well as naturally occurring particles such as pollen. This contamination accounts for many allergies and illnesses. Products exist on the market which aid in

filtering out these particles, however none have been developed to allow the user to guard the respiratory system more comfortably. The Purebreathe Nasal needed to address the comfort issue with existing nasal air filters and also help people who face a greater health risk from air pollution in a range of environments.

## Approach

Understanding the user and the environment in which the product was to be used was crucial to the direction of the product. Extensive user research including focus groups with Chinese individuals was the first step in gaining an appreciation into the behaviour and perceptions of the target market. This group of individuals participated further in all user research and testing throughout the project maintaining a consistency in results.

The Lifelab development team worked closely with Sethi to understand the different methods of offering a drug-free treatment to prevent airborne allergies and the constraints relating to consumer behaviour. The partnership also gained expert help from the leading materials and manufacturing specialists 3M Healthcare in order to decide on the best adhesive to use.

Initial brainstorm ideas between Sethi and Lifelab led to proof of principal models which showed clearly the effectiveness and efficiency of the filters that were chosen. A number of ideas were then progressed before a single route was agreed that offered a balance between comfort and effectiveness.

## Result

The idea of an adhesive plaster concept was proposed which unlike existing products is mounted onto the external surface area. This immediately addressed the emotional perception users have with a product that would be inserted into their nostrils. The final concept suggests a solution that is an alternative drug-free treatment which is simple and easy to use.

The project team is currently exploring commercialisation options and developing the design of the Purebreathe Nasal further.

