Ultra-Energy Efficient Filter-Media

HKSTP PARTNER

PolyVenture
from PolyU Entrepreneurship Programme

An advanced nanofiber filter media offering ultra-low energy consumption, quiet operation, and extended lifespan—ideal for next-gen air purifiers and sustainable HVAC systems.

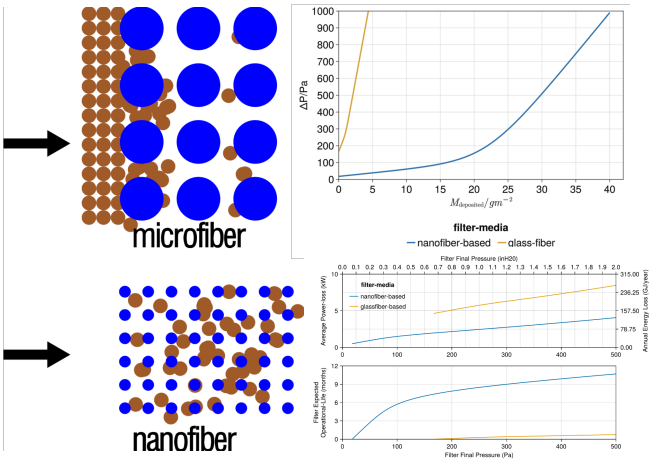
The Problem

Conventional HEPA are dense, thick mat of fibers, requiring a lot of power to push air through. This leads to a lot of wasted energy, and noise. The dense mat makes it easy to form dust cake layer, leading to a short life of 3 to 6 months.

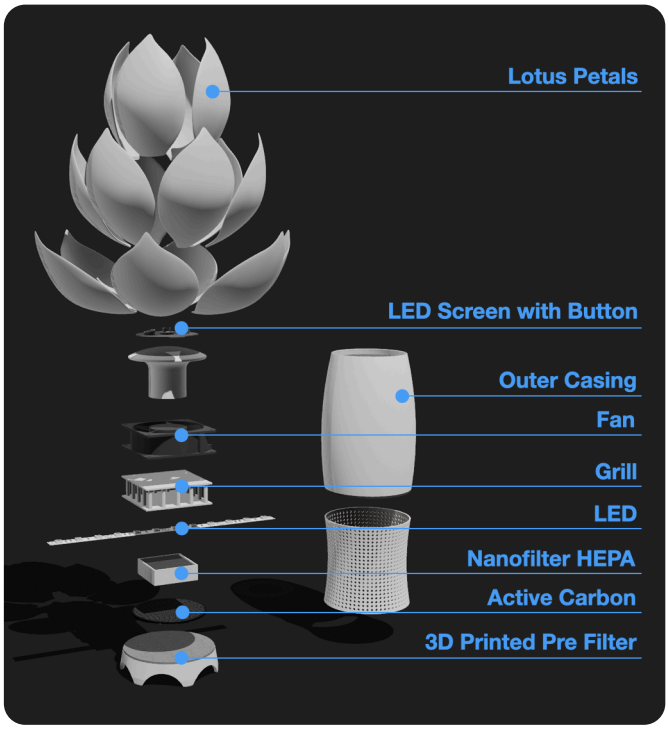
Our Solution

POWERED BY PolyU Tech

Keno Nanofiber utilized the latest technology from the Hong Kong Polytechnic University to create a nanofiber-based HEPA that can save 88% of the energy from a traditional HEPA. The design allows air to flow through the media easily and suppressed cake formation, creating a quiet, efficient HEPA that can run for 1-2 years.



3D printed air purifier



Patents and Awards

- Patented multi-module charged-PVDF nanofiber filter-media
- Gold Medal from Exhibition of Inventions Geneva 2014
- Special Award from Romania Ministry of Education 2014
- Finalist of Austria Sustainable City Solution 2024

AUSTRIA JUMPSTARTER Inventions Geneva

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