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Simplified Pandemic Face Mask

Edward Bullister

Cambridge Technology Development, Inc.

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Simplified Pandemic Face Mask

Prior work describes improvements to face mask technology to cope with the pandemic; see:

(Bullister, Edward, "Pandemic Face Mask," Technical Disclosure Commons, (July 02, 2020)

https://www.tdcommons.org/dpubs_series/3398

This document discloses a simplified alternative mask system. The advantages of this alternative mask include:

- 1) It is currently readily available.
- 2) It is effective (it provides N95 filtration efficiency for both inhalation and exhalation)
- 3) Its large filtration surface facilitates easy breathing
- 4) It can be readily put on and removed, and its lanyard keeps the mask within ready reach.
- 5) It is unobtrusive and lightweight (the assembly weighs only 10 gm (1/3 ounce), making it comfortable to wear and easy to seal with the face without undue force on its loops.



The US Center for Disease Control (CDC) has tested many of these KN95 masks for effectiveness. The results are at:

<https://www.cdc.gov/niosh/npptl/respirators/testing/NonNIOSHresults.html>

As of August 2020, such KN95 masks are readily available on retail websites (search "KN95") for 2-3 \$US each. The Tangfei KN95 mask pictured above was purchased from aliexpress.com. It passed the CDC tests.

Rotating through a supply of masks can minimize the risk of contamination from a re-using a mask. For example, rotating through 7 masks (one for each weekday) gives each mask 6 days rest to self-decontaminate before re-use.

The pictured lanyard came with clips that can attach to the ear loops of a KN95 mask. This lanyard ensures that the mask is readily available. The KN95 ear loop design enables the mask to be put on and removed easily.

Like librarians who keep a pair of glasses tethered by a lanyard to be always available, we all should keep a mask available as we work through this pandemic.