

Boise Guerilla Mask Makers

Mission Statement: In a nonprofit and philanthropic endeavor we will design and manufacture the best possible washable, reusable surgical masks with replaceable HEPA vacuum bag filters for the Boise health care, service worker, elderly, and homeless populations.

Founders: Greg Hoetker and Tyler Bevis

Key Personnel/Social Media: Pete Peterson and Seth Robinson

Other Personnel: Boise School District volunteers, top seamstresses in the Treasure Valley

Beginning Fundraising Date: March 24, 2020

GoFundMe: <https://www.gofundme.com/f/BoiseGuerillaMaskMakers>

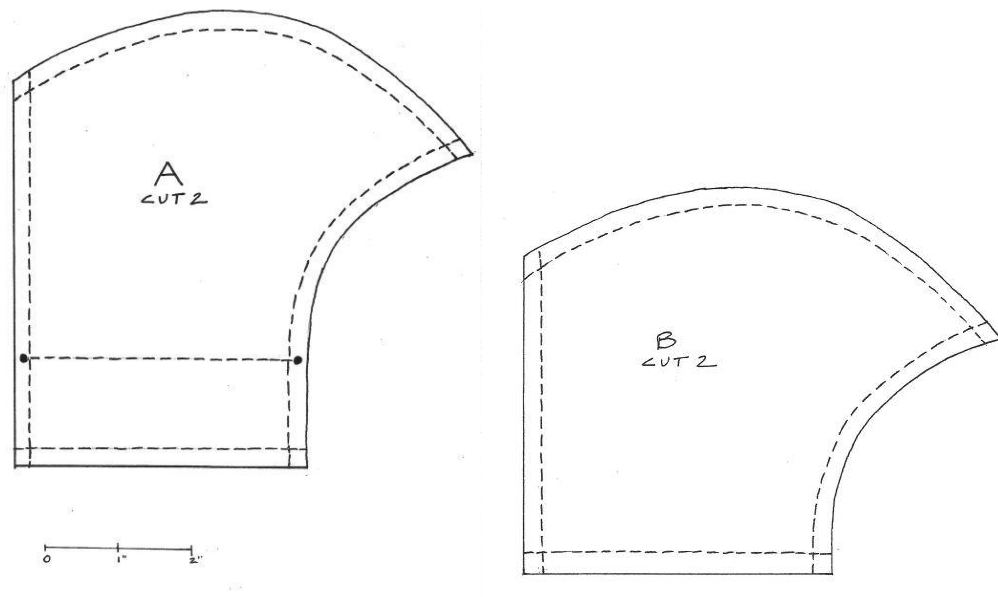
Current Amount Raised: \$4,303

Cost Objective Per Mask: \$1.00 or less

Materials: cotton/poly tight jersey weave fabric (for a balance of breathability and droplet repellency); non-fiberglass HEPA vacuum bag filters offering 99.97% filtration at 0.3 microns; braided elastic

Our Rationale: It is clear that our federal, state, and local governments have failed to prepare for this unprecedented COVID-19 pandemic, including but not limited to providing proper PPE for those on the front lines—most glaringly, our nurses and doctors. The **Boise Guerilla Mask Makers** considers this failure not only reactive rather than proactive but also negligent.

Mask Design:



Many volunteer grassroots maskmakers have admirably decided to take matters in their own hands. What sets **Boise Guerilla Mask Makers** apart from the rest is its devotion to researching, designing, and manufacturing the best possible form-fitting surgical mask, one that rivals the ordinary masks rapidly being depleted in hospitals across the United States, allowing hospitals to better utilize their limited stockpile of N-95 respirators for highly contagious hospital interventions.

QUESTION: What Should DIY COVID-19 Coronavirus Masks Be Made Of?

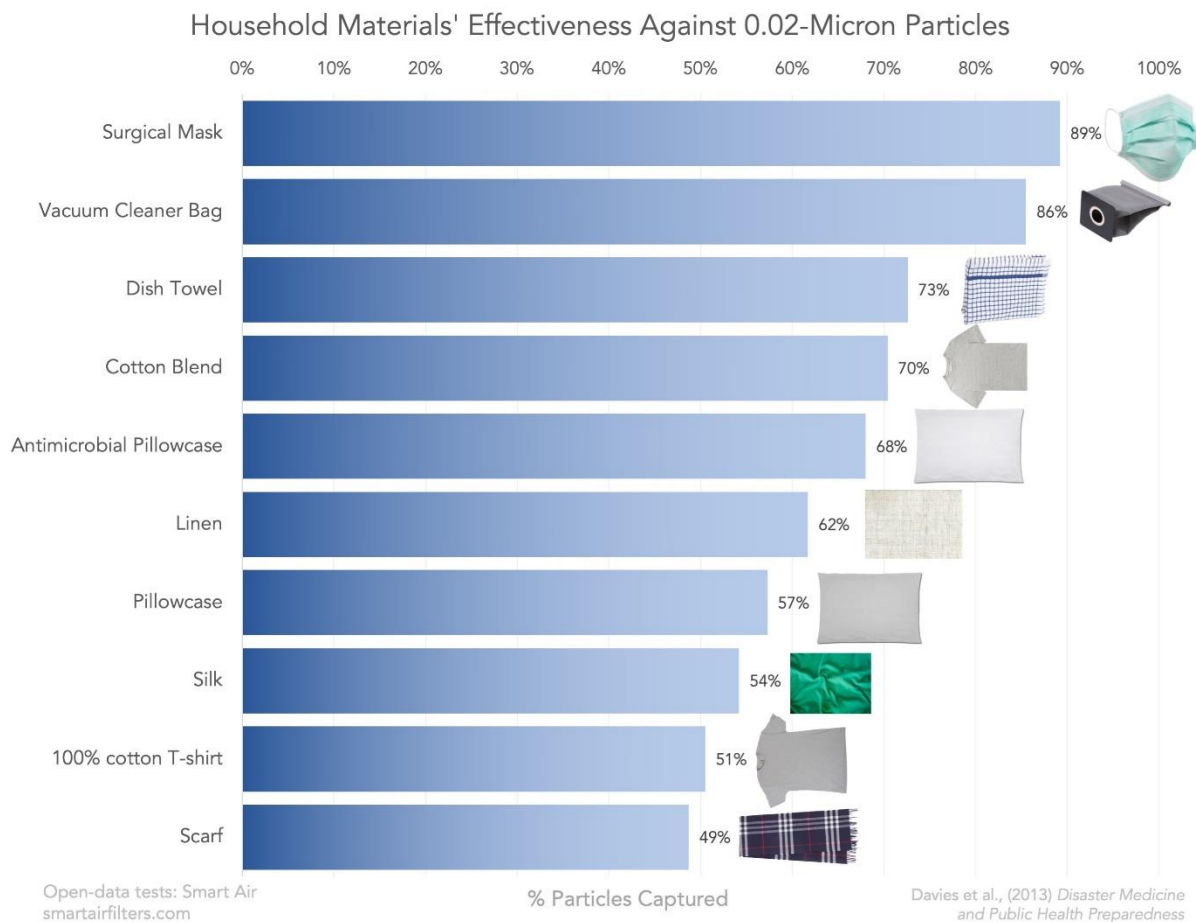


Fig.1. Effectiveness of household materials against particles smaller than COVID-19 coronavirus (Davies et al.)

Boise Guerilla Mask Makers believes that, based on prior research from NASA and Cambridge University, a cotton/poly blend mask with a reusable vacuum bag HEPA insert may surpass the effectiveness of a regular hospital surgical mask, in terms of preventing patient-to-provider spread of the COVID-19 coronavirus.

Research:

Cambridge University. Davies, Anna, Katy-Anne Thompson, George Kafatos, and James T. Walker. Testing the Efficacy of Homemade Masks: Would They Protect in an Influenza Pandemic? *Disaster Medicine and Public Health Preparedness*. Aug. 2013.

NASA. Submicron and Nanoparticulate Matter Removal by HEPA-Rated Media Filters and Packed Beds of Granular Materials. J.L. Perry, Marshall Space Flight Center, Huntsville, Alabama; J.H. Agui, Glenn Research Center, Cleveland, Ohio; R. Vijayakumar, Aerfil LLC, Liverpool, New York. 2016.

School of Public Health and Community Medicine, Faculty of Medicine, University of New South Wales, Australia; National Centre for Immunization Research and Surveillance of Vaccine Preventable Diseases (NCIRS), The Children's Hospital, Westmead, Australia. Chughtai, Abrar Ahmad, Holly Seale, and Chandini Raina MacIntyre. Use of Cloth Masks in the Practice of Infection (A Meta-analysis). *International Journal of Infection Control*. V9:I3. 2013.

Stanford University. Anesthesia, Informatics and Media Lab. Price, Amy and Larry Chu, MD. COVID-19 Evidence Service | Addressing COVID-19 Face Mask Shortages. V 1.1. 22 Mar. 2020.

We are the **Boise Guerilla Mask Makers**.

EMAIL: boiseguerillmaskmakers@gmail.com

INSTAGRAM: @boiseguerillmaskmakers

