Directions to Make 3D Printed Mask

Printing the Files

- Two .stl files need printed per mask and are located at www.makethemasks.com
- We suggest PLA material, but others such as ABS will work
- Takes 3-6 hours and varies printer to printer
- Designed to be printed without supports
- Print an array if possible, source file is included if one would like to modify
- Designed for Adult Large, scale to 90% or less for smaller masks

Making the Mask

- Sand around the edge touching face with 200 + sandpaper
- For added seal, a self-adhesive gasket material (Weatherseal “D” Profile 5/16 inch wide found at a local hardware store) can be applied on the inside edge of the masks
- A second gasket is applied underneath the first gasket around the nose area 7 inches seems to work best
- Fasten elastic cord to the attachments and adjust to desired tension
- Elastic chord, string, straps, or any variation can be used as ties

Placing Filter

- Existing clinical masks can be used as filter patches (surgical masks for surgical, and N-95 masks for better protection) by cutting them into 2.5 in squares, can get 6 filters from one mask
- Place filter material on the inside of the mask and fasten by pushing holding ring and filter together into space

Aseptic Technique

- These masks are reusable, but each person should have their own
- Masks can be cleaned and disinfected by soap and water as well as disinfectant agents
- Practice good hygiene by washing hands before and after changing filters and removing mask
- Clean mask often, change filter often

*Special Thanks to Dusty Richardson, Colton Zaugg, Spencer Zaugg, as well as Billings Clinic for the ideas, designs and implementation.