COVID-19 3D US FACE SHIELD

Date: 1 April 2020 **Level**: Intermediate
Region: US **Category/Area**: Assembly
Audience: Manufacturers **Confidentiality**:Public

3D FACE SHIELD - Assembly Instructions

Bill of Materials

- **1x Shield frame** MJF part that can be printed in either HP 3D High Reusability PA 12 or PA 11 [A]
- **1x PET/PETG film** 0.007”-0.015’’ thick,13’’x8”wide [B]
    - *PC film is an acceptable alternative*

Tools

- HP Jet Fusion 4200 / 5200 3D Printing Solution
- Standard size hole punch [4.25’’ (107.95mm) hole spacing] with open ends (allows for sheets wider than normal 11’’ A size sheet)
    - *Best to use in conjuction with a soft tablecloth to prevent scratching the film*

Swingline Model 440 used

- Latex/Vinyl Gloves (use them throughout the whole process)

ASSEMBLY INSTRUCTIONS

Prepare the clear film

1. Round the bottom corners of the clear film as shown in the image below (distances in mm). Also be sure to provide a slight round on the top corners [C] to rid the film of sharp poking hazards.

2. Use the hole punch to make holes in the clear film. Preferably you can use an office hole punch as described above in “Tools” with the capability of doing 3 holes. If a hole punch guide is available, adjust the width of the guideto the length of the film [13” (330.2 mm)]. Place one punch in the middle of the film (6.5” [165.1 mm] from the edge) and place the other 2 holes 4.25” (107.95 mm) from the center (hole to hole center). Then proceed to punch.

Once validated and properly assembled for one sheet, do several of them at the same time if the hole puncher allows.

Assemble the different pieces

1. Align one of the side holes on the plastic film with one of the sidepins on the frame. Keeping the hole looped over the side pin, loop the middle hole over the middle pin, then the other side hole over the remaining side pin. Embossed lettering should be readable.

   You can bend the frame to ease fitting

2. Once the sheet is attached to the frame, bend the front of the frame to slot together the interior straps, keeping the bend in place. Pull the interior straps to ensure pins are properly slotted and locked into place.

3. Fit the face shield to the user's forehand, and secure the strap behind the head using the adjustable slot locations. Readjust to ensure a snug fit.

FINAL PRODUCT