OPEN-SOURCE PERSONAL PROTECTIVE EQUIPMENT:

FACE SHIELD

CHECK BEFORE YOU GET STARTED

This document provides instructions for those individuals or groups interested in producing face shields for their own community.

Before beginning construction, be sure to check with your local health care providers to see whether they need these shields, and to confirm whether they can accept these face shields. Please don’t buy up local supplies unless you have confirmed a local need!

WHAT YOU’LL NEED

FABRICATION EQUIPMENT:

- Laser cutter, cutting die, or shear
- Acrylic hot bender or handheld heat gun
- Heavy-duty stapler (electric or hand-held staple gun works great)
- Hot knife or scissors to cut foam

PERSONNEL:

These can be manufactured by one person but having a team to assemble makes the process faster and easier. Someone with previous knowledge operating cutting equipment will be helpful.
MATERIALS:

FACE SHIELD

- **Material**: 1/32” clear cast acrylic sheet
- **Note**: This acrylic is typically available in 12” x 24” sheets – with modification to the cutting file, it may be possible to produce two shields per acrylic sheet; we believe the allowing for two face shields per sheet; other types of plastic may be available in your community.
- **A schematic for cutting the acrylic sheet is included at the end of this document**

BROW FOAM & HEAD BAND

- **Materials**:
  - 2” x 12” foam block
  - Adhesive (double stick tape or hot glue work best)
  - Elastic Fabric (1” wide x 12” long”), staples
  - **2 cloth ties can be substituted for the elastic band, if supplies are limited or if the wearer needs different sizes & adjustments for comfort**
- **Note**: some elastic fabrics may contain latex, which some people are allergic to – check for presence of latex in the elastic fabric, and clearly label your mask to indicate if it contains latex. If elastic is not currently available
ASSEMBLY

STEP 1: CUT OUT THE ACRYLIC SHEET INTO THE PATTERN PROVIDED AT THE END OF THIS DOCUMENT.

STEP 2: USING A DIRECTED HEAT SOURCE, BEND THE BOTTOM OF THE ACRYLIC TO CREATE THE CHIN GUARD.

STEP 3: ROTATE THE SHIELD TO HEAT AND BEND EACH SIDE SHIELD.

STEP 4: NOW HEAT AND BEND THE OVERHANG FROM THE CHIN GUARD TO OVERLAP WITH THE SIDE SHIELDS

STEP 5: INSERT THE CUT FOAM INTO THE TOP OF THE SHIELD, KEEPING IT IN PLACE WITH DOUBLESTICK TAPE OR HOT GLUE.

STEP 6: PLACE THE ELASTIC BAND THROUGH THE CUTOUT ON EACH SIDE SHIELD. PULL AT LEAST 1” OF ELASTIC THROUGH EACH SIDE BEFORE USING 2 OR 3 STAPLES ON EACH SIDE TO SECURE THE ELASTIC.