

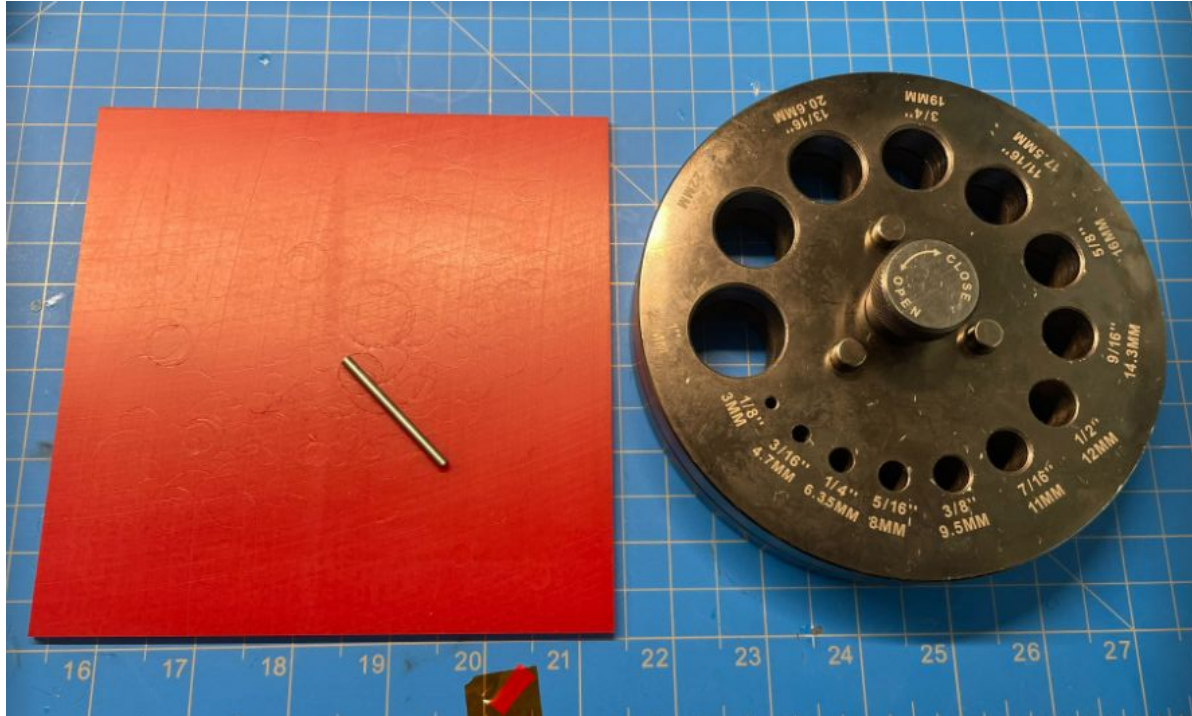
# diffuser optic assembly instructions

# overview

Diffuser film is glued directly to the sapphire optic with a thin layer of UV cure CA adhesive, instead of using pressure sensitive adhesive sheet as was done in previous generations of the blood flow device

# Prepare work surface and cutting tool

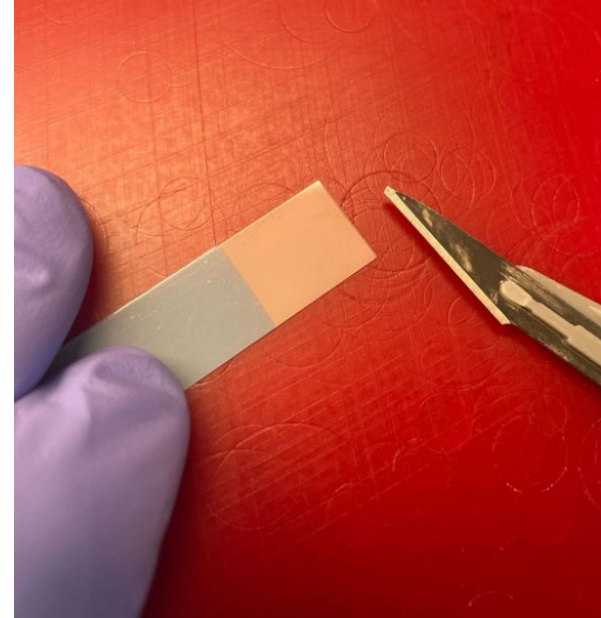
Wipe down cutter body, cutter pin, and pad with IPA



# Prepare diffuser material strip

Cut a piece of 100 degree diffuser material approximately 1 x 5 cm

Score and remove blue protective film from one end

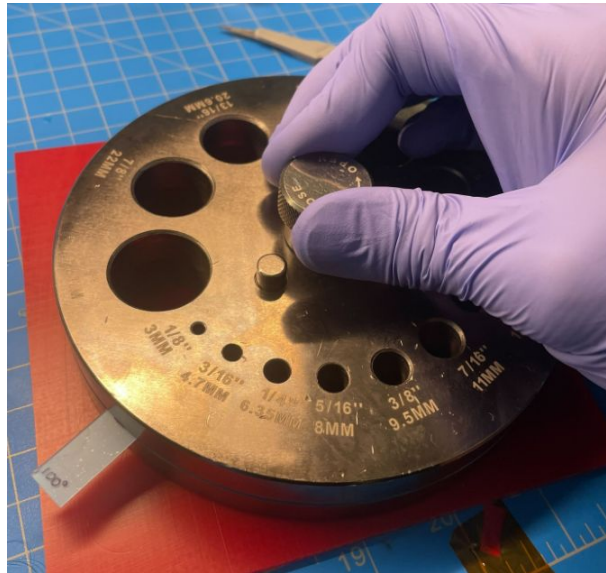
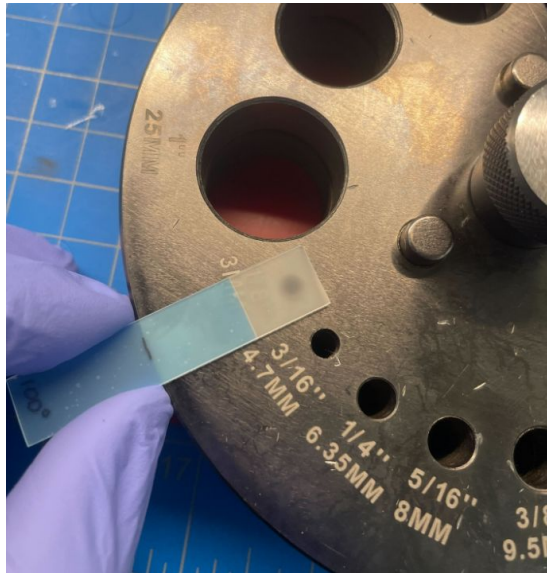


# Punch diffuser disc

Place strip into disc cutter with matte surface facing up (remaining protective film will be facing down)

Tighten the cutter halves together so that the diffuser material is secure

Use a brass hammer to punch the disc in a single clean stroke, so that the cutter pin drives down to the mat

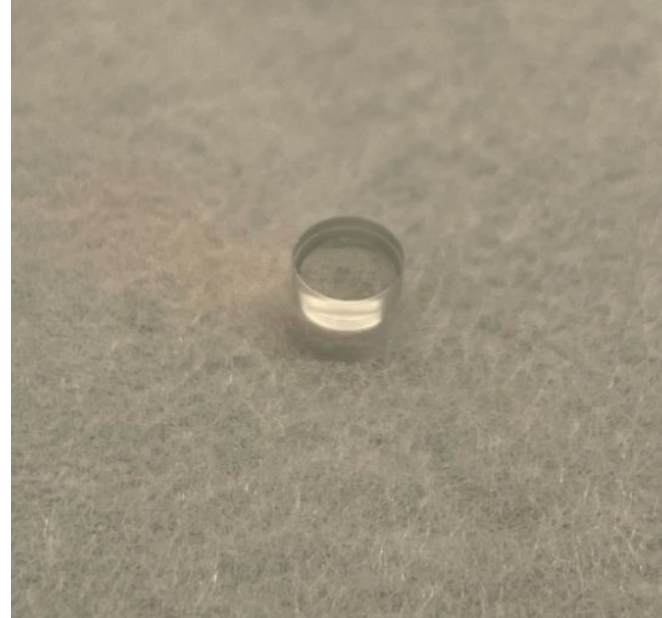
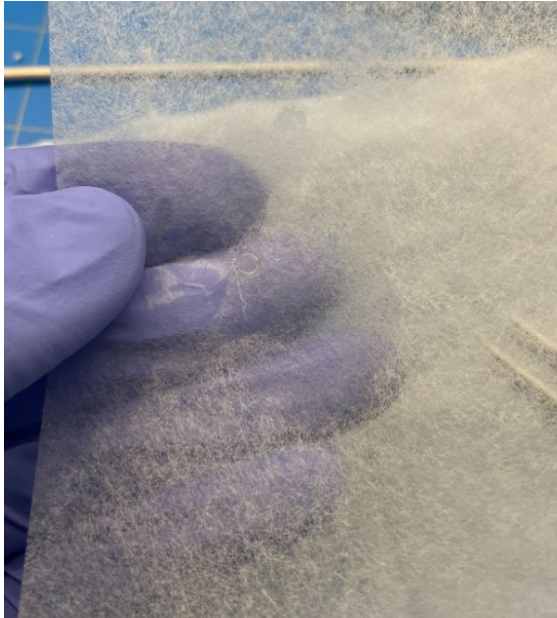




# Prepare diffuser and optic

Carefully remove the cut diffuser disc from the mat, and wipe with IPA on a lint free sheet

Obtain a sapphire optic, and wipe with IPA if needed



# Glue diffuser disc to optic

Place sapphire optic on lint free sheet with larger diameter facing UP

Use a needle applicator to apply a small amount of Loctite 4310 adhesive to the surface. Spread somewhat evenly across the optic

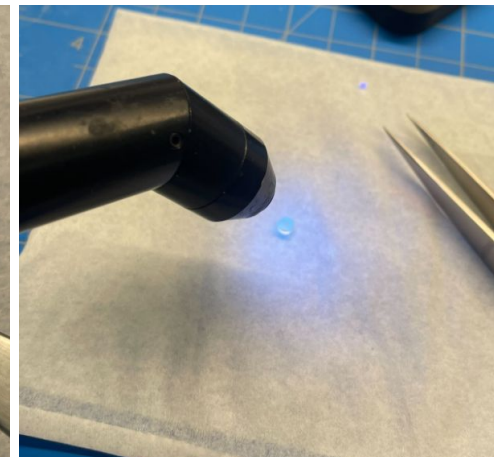
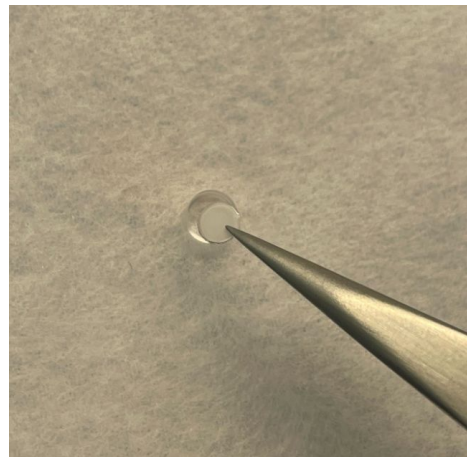
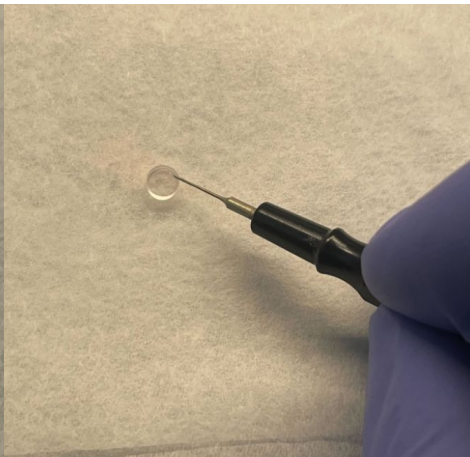
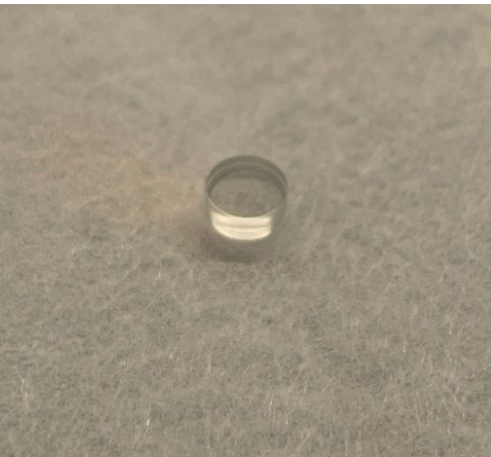
Carefully place and center the diffuser disc on the optic

When viewing the disc, one side will appear white, while the other appears translucent

Translucent side should be facing UP

If placed incorrectly, the adhesive will wet the diffuser surface and it will appear clear instead of translucent

Lightly press the diffuser disc to the optic, removing air bubbles. Remove tool and cure with UV gun



# Clean and inspect assembly

Wipe assembly with a small amount of IPA and lint free wipe

Inspect and verify that

- Assembly is free of debris
- Diffuser disc is well centered and does not overhang edge of sapphire optic
- Diffuser disc is free of air bubbles
- Diffuser disc appears evenly translucent across its face
- Diffuser is placed on correct side (larger diameter)

