

Materials List for

# Design and Development of a Three-Dimensionally Printed Microscope Mask Alignment Adapter for the Fabrication of Multilayer Microfluidic Devices

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## Materials

| Name  | Company                          | Catalog Number        | Comments   |
|---|----------------------------------|-----------------------|--|
| Acrylonitrile Butadiene Styrene (ABS), 3D Printing Filament |                                  |                       | Provided by the Texas Tech University 3D printing facility |
| BX53, Upright Microscope                                    | Olympus                          |                       |  |
| Form 2, Stereolithography 3D printer                        | Formlabs                         |                       |  |
| Advanced Hot Plate Stirrer                                  | VWR                              | 97042-642             |  |
| Isopropyl Alcohol, 70% (v/v)                                | VWR                              | BDH7999-4             |  |
| Light Colored Marker  | Sharpie                          |                       |  |
| Magnets, 3 mm x 3 mm  | WOTOY                            |                       | ASIN #: B075PLVW8W   |
| SYLGARD 184 Silicone Elastomer Kit                          | DOW                              | 4019862               |  |
| Petri Dish, 150 mm x 15 mm                                  | VWR                              | 25384-326             |  |
| Printed Photomasks  | CAD/Art Services, Inc.           |                       |  |
| Aluminum Support Jack - 8" x 8", Scissor Lift               | VWR                              | 12620-904             |  |
| Silicon Wafer   | University Wafer                 | 452                   |  |
| Sodium Hydroxide  | VWR                              |                       |  |
| Sonication Bath   | Branson                          | CPX3800H              |  |
| Spin Coater   | Laurell Technologies Corporation | Model WS-650MZ-23NPPB |  |
| STRATASYS SR-30   | MakerBot Industries, LLC         | SR-30                 | Dissolvable support material for 3D printing               |
| Stratasys uPrint SE 3D Printer                              | Computer Aided Technology, LLC   |                       |  |
| SU-8 50   | Kayaku                           | Y131269 0500L1GL      |  |
| SU-8 100  | Kayaku                           | Y131273 0500L1GL      |  |
| SU-8 Developer  | Kayaku                           | Y020100 4000L1PE      |  |
| Super glue  | Gorilla Glue                     |                       |  |

|   |               |            |  |
|---|---------------|------------|--|
| Trichloro(1 <i>H</i> ,1 <i>H</i> ,2 <i>H</i> ,2 <i>H</i> -perfluorooctyl)silane | Sigma-Aldrich | 448931-10G |  |
| Tape  | Scotch        |            |  |
| Form Cure, UV Curing Chamber  | Formlabs      | FH-CU-01   |  |
| UV-KUB2, UV Light-Exposure Box  | Kloe          | UV-KUB2    |  |