

Materials List for:

Rapid Fabrication of Custom Microfluidic Devices for Research and Educational Applications

Megan Levis, Fernando Ontiveros, Jonathan Juan, Anthony Kavanagh, Jeremiah Zartman

TODO, TODO

Correspondence to: Jeremiah Zartman at jzartman@nd.edu

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Materials

Name	Company	Catalog Number	Comments
Biopsy punch (1mm)	Miltex	33-31AA	Optional, replaces rotary tool set up
Blunt needles	Janel, Inc.	JEN JG18-0.5X-90	Remove plastic and attach to Tygon tubing
Coverslips	Any		24 x 60 mm are preferred
Cutting Mat and blades	Silhouette America or Nicapa	www.silhouetteamerica.com/shop/blades-and-mats	Re-use/Disposables
Double-sided tape	Scotch/3M	667	Small amounts, any width or brand
PEEK tubing	IDEX/any	1581L	Different configurations available. Consider using Tygon tubing instead, if not already using PEEK
PET/EVA thermal laminate film	Scotch/3M & Transcendia	TP3854-200, TP5854-100 & transcendia.com/products/trans-kote-pet	3 - 6 mil (mil = 1/1000 inch) laminating pouches or rolls.
PVC film - Cling Wrap	Glad / Any		Food wrapping
Rotary tool-drill	Dremel/Any	200-121 or other	1/32 and 3/64" drill bits from Dremel recommended
Rubber Roller	Speedball	4126	To facilitate adhesion, any brand will work
Scissors & tweezers	Any	Fiskars-Inch-Titanium-Softgrip-Scissors Cole-Parmer -# UX-07387-12	Quality brands are recommended
Silhouette CAMEO Craft cutter	Silhouette America	www.silhouetteamerica.com/shop/cameo/SILHOUETTE-CAMEO-3-4T	Preferred craft cutter
Silhouette Studio software	Silhouette America	www.silhouetteamerica.com/software	Controls the craft cutter and provides drawing tools (free download MAC and PC)
Syringe Pump	Harvard Apparatus or New Era	70-4504 or NE-300	Pumps are ideal, pipettes or burettes can be used.
Syringes	Any		1-3mL
Thermal laminator	Scotch/3M	TL906	Standard home/office model
Tygon tubing (E-3603)	Cole-Parmer	EW-06407-70	Use with blunt needle tips
Vinyl furniture bumpers	DerBlue/3M/ Everbilt	Clear, self-adhesive (6 x 2 mm and 8 x 3 mm)	Round bumpers are recommended