

Materials List for:

# An Additive Manufacturing Technique for the Facile and Rapid Fabrication of Hydrogel-based Micromachines with Magnetically Responsive Components

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## Materials

Name	Company	Catalog Number	Comments
Poly(ethylene glycol) (n) diacrylate [MW 400Da]	Polysciences, Inc	01871-250	PEGDA reagent for prepolymer
Darocur 1173	Ciba Specialty Chemicals, Inc	-	Photoinitiator
Iron oxide (II, III)	Sigma Aldrich	637106-25G	Iron oxide nanoparticles
Trichloro(1H,1H,2H,2H-perfluorooctyl)silane	Sigma Aldrich	448931	Fluorinated compound that is used to vapor silanize the PDMS chamber to prevent adhesion of hydrogel to the glass coverslip that is bonded to the flexible PDMS membrane with prolonged use of the PDMS chamber
Petri dish, glass	Sigma Aldrich	BR455743	Glass petri dishes for casting PDMS layers for forming PDMS chamber
Sylgard 184 Silicone Elastomer Kit (PDMS)	Dow Corning	240-4019862	PDMS for fabrication chamber
Glass coverslips (No. 2), 50 x 45 mm	Fisher Scientific	FIS#12-543F	Glass substrates that cover the fabrication chamber
Fisherbrand Straight Flat Tip Forceps 4.75in	Fisher Scientific	FIS#16-100-112	Tweezers for handling polymerized hydrogel layers/devices
Omniculture S2000	Cadence Technologies Pte Ltd	010-00148R	UV lamp
5 mm Adjustable Collimating Adaptor	Cadence Technologies Pte Ltd	810-00042	Collimator for UV lightsource
Photomasks	CAD/Art Services Inc	-	Photomasks used to define hydrogel microstructures
Adobe Illustrator	Adobe	-	Designing of photomasks