

Materials List for:

A Paired Bead and Magnet Array for Molding Microwells with Variable Concave Geometries

Gi-Hun Lee¹, Youngjoon Suh¹, Joong Yull Park¹

¹School of Mechanical Engineering, College of Engineering, Chung-Ang University

Correspondence to: Joong Yull Park at jrpark@cau.ac.kr

URL: <https://www.jove.com/video/55548>

DOI: [doi:10.3791/55548](https://doi.org/10.3791/55548)

Materials

Name	Company	Catalog Number	Comments
CNC rotary engraver	Roland DGA	EGX-350	
Micro drill bit	HAM Präzision	30-1301 TA	Φ 0.55 and 0.75 mm
Sulfuric acid 98%	Daejung	7683-4100	For cleaning aluminum plate. Dilute with distilled water with 15% solution
Neodymium magnet	Supermagnete	W-01-N	1 x 1 x 1 mm
Bearing ball	Agami Modeling	SUJ2	Φ 600 μm steel bead
Polydimethylsiloxane (PDMS)	Dowcorning	Sylgard 184	
Pluronic F-127	Sigma Aldrich	p2443	Dilute with phosphate buffered saline to 4% (w/v) solution
Dulbecco's modified eagle's medium (DMEM)	ATCC	30-2002	
Dulbecco's phosphate buffered saline (D-PBS)	ATCC	30-2200	
Fetal bovine serum	ATCC	30-2020	
Adipose-derived mesenchymal stem cells	ATCC	ATCC PCS-500-011	