

Materials List for:

# Design and Fabrication of an Elastomeric Unit for Soft Modular Robots in Minimally Invasive Surgery

Iris De Falco<sup>1</sup>, Giada Gerboni<sup>1</sup>, Matteo Cianchetti<sup>1</sup>, Arianna Menciassi<sup>1</sup>

<sup>1</sup>The BioRobotics Institute, Scuola Superiore Sant'Anna

Correspondence to: Iris De Falco at [i.defalco@sssup.it](mailto:i.defalco@sssup.it)

URL: <https://www.jove.com/video/53118>

DOI: [doi:10.3791/53118](https://doi.org/10.3791/53118)

## Materials

Name	Company	Catalog Number	Comments
Ecoflex 00-50 Trial Kit	SmoothOn		Used for the fabrication of the soft unit, combining equal amounts of liquid parts A (the base) and B (the catalyst)
Latex	Antichità Belsito		Used for the fabrication of the granular jamming membrane
Peroxide-Cured Silicone Tubing	Cole Parmer	T-06411-59	Used for actuating the chambers and applying vacuum
PET expandable braided sleeving	RS	408-249	Used for the fabrication of the external braided sheath
Silicone Rubber	Momentive	127374	Used to fix the actuation tubes to the module
Parafilm	Cole Parmer	EW-06720-40	Used to fix the latex membrane to the vacuum tube
Fume hood Secuflow	Groupe Waldner		Working space
Precision scale	KERN EW		Used to weight silicone, latex and coffee powder
Oven/degasser	Heraeus		Used to degass the silicone and reduce its cure time
Vacuum pump	DVP Vacuum Technology		Used to apply vacuum to the latex membrane