

Materials List for:

Rod-based Fabrication of Customizable Soft Robotic Pneumatic Gripper Devices for Delicate Tissue Manipulation

Jin-Huat Low¹, Chen-Hua Yeow¹

¹Department of Biomedical Engineering, Advanced Robotics Centre, Singapore Institute for Neurotechnology, National University of Singapore

Correspondence to: Chen-Hua Yeow at rayeow@nus.edu.sg

URL: <https://www.jove.com/video/54175>

DOI: [doi:10.3791/54175](https://doi.org/10.3791/54175)

Materials

Name	Company	Catalog Number	Comments
Weighing Scale	Severin	KW3667	(Step: Preparation of elastomers)
Ecoflex Supersoft 0030 Elastomer	Smooth-On	EF0030	(Step: Preparation of elastomers)
Planetary Centrifugal Mixer and Containers	THINKY USA Inc.	ARE-310	(Step: Preparation of elastomers)
Solidworks CAD	Dassault Systèmes	Solidworks Research Subscription	(Step: Soft single/double-actuable arm pneumatic grippers)
Objet 3D Printer	Stratasys	260 Connex2	(Step: Soft single/double-actuable arm pneumatic grippers)
Titanium Wire Rods	Titan Engineering	N/A	(Step: Soft single/double-actuable arm pneumatic grippers)
Natural Convection Oven with Timer	Thermo Fisher Scientific	BIN#ED53	(Step: Soft single/double-actuable arm pneumatic grippers)
Linear Actuator	Firgelli Technologies	L12	(Step: Insertion of soft robotic pneumatic gripper device into handling tool)
Jumper Wire	sgbotic	CAB-01146	(Step: Evaluations and grip compressive test)
Force Sensing Resistor	Interlink Electronics	FSR402	(Step: Evaluations and grip compressive test)