

# Softly Does It

## Soft Robotics, Art & Design

Université Paris Sciences et Lettres - Amphithéâtre Amyot - 3 rue Amyot - 75005 PARIS - 6 et 7 février 2025

6 February: Presentations 10:00 - 12:30 | 14:00 - 17:30 | Round table discussion 18:00 - 19:30 - 7 February: Workshop 10:00 - 12h30 | 14:00 - 16:30

Languages: French and English



*Snakable*, 2020, Samuel Bianchini (EnsadLab) avec S.MART Franche-Comté, AS2M department / FEMTO-ST et ENSMM

The CNRS Robotics Research Group (GDR) together with the “Material, Architecture and Embodied Intelligence” project and Potential Humanities Unit of the “Organic Robotics” Priority Programme and Equipment Research (PEPR) are organizing, in partnership with EnsadLab (the laboratory of the School of Decorative Arts – Université PSL), a two-day workshop exploring the crossovers and interconnections between soft robotics, art and design.

In the space of a few years, soft robotics has become a rapidly expanding research field whose creative potential is increasingly visible both in art and in design. Signs of the times: the largest scientific conference in the field, *Robosoft*, has just launched a call for projects for an art and design exhibition, while Korean artist Mire Lee has been exhibiting her soft sculptures in the Tate Modern's Turbine Hall since October 2024. Over the past few years in France, scientific laboratories such as CRISTAL in Lille, Femto-ST in Besançon and PMMH in Paris have been undertaking research in soft robotics with artists, designers and architects, while art and design labs such as EnsadLab have been developing soft robotics projects in partnership with a number of scientific laboratories. This new approach to robotics implies rethinking the relations between flexible activated robotic bodies, their materiality, sensibility and relative controllability, and their new, more responsive interactions with their environments. Necessarily pluridisciplinary, this field of research and creativity can be viewed in the context of the material and ecological turns. It instigates considerable discussion and debate, whether techno-scientific, anthropological or philosophical. This two-day workshop will not only provide an overview of current practices, but will also recontextualize these practices within recent techno-scientific developments and in terms of fundamental, current and prospective pluridisciplinary thinking.

**The first day of the workshop on 6 February** will present projects associated with the main disciplines involved: robotics, material sciences, design and art.

The first day is organized by Samuel Bianchini, Jérémie Dequidt, Yassine Haddab, Rahma Khazam, Kanty Rabenoroso, Pierre Renaud, Lennart Rubbert, with presentations by Samuel Bianchini (artist and researcher, EnsadLab) and Kanty Rabenoroso (robotics researcher, Femto-ST, Besançon), Frédéric Boyer (robotics researcher, LS2N, Nantes), Antoine Desjardins (artist, EnsadLab) and Giancarlo Rizza (researcher in 4D printing of multifunctional materials, CEA - École polytechnique), Maude Guirault (designer, Femto-ST and EnsadLab), Alice Jarry (artist-researcher, Univ. Concordia, Montreal) and Hamid Akbarzadeh (robotics researcher, Univ. Mc Gill, Montreal), Yosra Mojtahedi (artist) and Stefan Escada Navarro (robotics researcher, Universidad de O'Higgins, San Fernando, Chili), Aurélie Mossé (designer-researcher, EnsadLab), Lingxiao Luo (doctoral candidate in design, EnsadLab), Ana Piñeyro (post-doctoral researcher in design, EnsadLab), Etienne Reyssat (material sciences researcher, ESPCI), Célie Saghour (post-doctoral researcher in robotics, Lirmm, Montpellier), Anna Schaeffner (doctoral candidate in design, EnsadLab and Cluster Matters of Activity, Humboldt University), Félix Vanneste (post-doctoral researcher in robotics and design, EnsadLab).

At the close of the first day, at 6pm, a round table discussion will explore the practical and theoretical implications of these projects.

Participants: Christian Duriez (roboticist, research director at Inria, Defrost Team, CRISTAL, Lille), Jonas Jørgensen (artist and researcher in soft robotics, University of Southern Denmark), Rahma Khazam (philosopher and art historian, Institut ACTE, Université Paris 1 Panthéon-Sorbonne), Patricia Ribault (design theorist, Univ. Paris 8).

**The second day of the workshop on 7 February** will be more speculative. Presentations in the fields of philosophy, the history of science, the history of art, design theory and anthropology will open up new perspectives on soft robotics and its uses.

The second day is organized by Samuel Bianchini and Rahma Khazam with presentations by Marinella Ferrara (design theorist, Design Department, Politecnico di Milano), Emmanuel Grimaud (anthropologist, Lesc-CNRS, Univ. Paris Nanterre), Jonas Jørgensen (artist and researcher in soft robotics, University of Southern Denmark), Virginie Mamet (art historian, Académie Royale des Beaux-Arts de Bruxelles), Marco Tamborini (philosopher of science, Institut für Philosophie, TU Darmstadt).

## Program 6 February 2025

### 10h-10h20

- Welcome and words by Emmanuel Mahé (Head of research of EnsAD – Université Paris Sciences et Lettres) - 5mn
- Introduction - Samuel Bianchini (artist and researcher, EnsAD, Paris) & Lennart Rubbert (robotics researcher, iCube - Insa, Strasbourg) - 15mn

### 10h20-12h30 - Robotics open to Art and Design

- Frédéric Boyer (robotics researcher, LS2N, Nantes) - 30mn
- Etienne Reyssat (material sciences researcher, ESPCI, Paris) – 30mn
- Célia Saghour (post-doctoral researcher in robotics, Lirrm, Montpellier) - 15mn
- Félix Vanneste (post-doctoral researcher in robotics and design, EnsadLab, Paris) - 15mn
- Discussion with the audience - 40mn

### 12h30-14h00 – Lunch

### 14h00-15h30- Art and design open to Robotics

- Aurélie Mossé (designer-researcher, EnsadLab) - 15mn
- Ana Piñeyro (post-doctoral researcher in design, EnsadLab) - 15mn
- Lingxiao Luo (doctoral candidate in design, EnsadLab) - 10mn
- Anna Schaeffner (doctoral candidate in design, EnsadLab and Cluster Matters of Activity, Humboldt University) - 10mn
- Maude Guirault (designer, Femto-ST and EnsadLab) - 10mn
- Discussion with the audience - 30mn

### 15h50-17h30 - Art and design projects with Robotics

- Alice Jarry (artist-researcher, Univ. Concordia, Montreal)
- & Hamid Akbarzadeh (robotics researcher, Univ. Mc Gill, Montreal) - 15mn
- Yosra Mojtahedi (artist)
- & Stefan Escalada Navarro (robotics researcher, Universidad de O'Higgins, San Fernando, Chili) - 15mn
- Antoine Desjardins (artist, EnsadLab)
- & Giancarlo Rizza (researcher in 4D printing of multifunctional materials, CEA - École polytechnique) - 15mn
- Samuel Bianchini (artist and researcher, EnsadLab)
- & Kanty Rabenoroosa (robotics researcher, Femto-ST, Besançon) - 15mn
- Discussion with the audience - 40mn

### 18h00-19h30 – Multidisciplinary Round Table

With Christian Duriez (roboticist, research director at Inria, Defrost Team, CRISTAL, Lille), Jonas Jørgensen (artist and researcher in soft robotics, University of Southern Denmark), Rahma Khazam (philosopher and art historian, Institut ACTE, Université Paris 1 Panthéon-Sorbonne), Patricia Ribault (design theorist, Univ. Paris 8).

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## Program 7 February 2025

### 10h00-12h15

- Introduction Samuel Bianchini and Rahma Khazam - 15mn
- Marco Tamborini (Institut für Philosophie, TU Darmstadt)
- "Philosophy of Soft Robotics: Translation, Orchestration, Morphological Intelligence, and Language" - 30mn
- Break - 15mn
- Jonas Jørgensen (University of Southern Denmark)
- "Soft Robot Aesthetics – Engineering Sensuous Speculation" - 30mn
- Discussion with the audience - 45mn

### 12h15-13h45 - Lunch

### 13h45-16h15

- Virginie Mamet (Académie Royale des Beaux-Arts de Bruxelles)
- "From Body to (Archi)Textile: New Ways of Being. Soft Sculpture & Robotics" - 30mn
- Marinella Ferrara (Politecnico di Milano)
- "Materials and Design: an intertwined relationship" - 30mn
- Break
- Emmanuel Grimaud (Lesc-CNRS, Univ. Paris Nanterre)
- "Alien possibilities. Between the hard, the soft and the weird" - 30mn
- Discussion with the audience - 45mn

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## Booking recommended

<https://forms.gle/M2aHwwq5oXovGeNC8>