

# PhD Student Position in the EPFL Soft Transducers Lab (EPFL-LMTS)

Research topic: compliant fiber pumps for active textiles

[The Soft Transducers Laboratory](#) (EPFL-LMTS) in Neuchatel, Switzerland has an opening for a **PhD student** to develop soft actuators for wearable robotics.

Note that the candidate must also apply and be admitted by one of the EPFL doctoral programs, e.g. EDMI or EDEE or EDRS.

## Research Context

The EPFL-LMTS is a leader in soft actuators based on elastomers, with a focus on electrostatic actuation. We develop wearable robotics for a broad range of applications in healthcare, industrial use, and VR. As part of an international consortium, we are working towards untethered soft exosuits.

## Job description

We have been investigating [fiberpumps](#), thin mm-diameter tubes that generate fluid flow with no moving parts, using electrohydrodynamic principles. Such fibers can be woven or knitted into active textiles. You will explore new geometries of fiberpumps to increase efficiency and thus expand use cases, study the underlying physics to better understand the principle, and develop scalable manufacturing techniques to enable continuous fiber production. You will then harness the improved fiberpumps for integration in soft exoskeletons.

## Your Profile

We are looking for a self-driven, rigorous and creative researcher with a strong interest in soft robotics. The successful applicant should have:

- MSc in Physics, Electrical Engineering, Mechanical Engineering, Robotics, or a related field
- Strong experimental and analytical skills
- Ability to collaborate closely with colleagues in a multicultural setting
- Outstanding problem-solving skills and attention to detail
- Excellent written and oral communication skills in English

**Start date:** 1.1.2025 (or as agreed)

## Workplace:

EPFL (Ecole Polytechnique Fédérale de Lausanne)  
LMTS (Soft Transducers Lab)  
Rue de la Maladière 71b, CH-2000 Neuchâtel, Switzerland

## We Offer

- Excellent facilities (state of the art cleanrooms, dedicated platform for soft matter processing, extensive characterization equipment)
- A young, dynamic, inter-disciplinary, and international working environment.
- World-class project partners in Europe, USA and Asia
- Competitive salary

To apply for the position, please email a CV, cover letter, university transcript and list of three references to [herbert.shea@epfl.ch](mailto:herbert.shea@epfl.ch).