

Special Issue

Magnetic Manipulation in Micromachines

Message from the Guest Editor

There have been many types of locomotion and manipulation mechanisms in micromachines, such as the use of piezoelectric actuators, ultrasonic vibration, etc. Among them, magnetic manipulation, including the use of electromagnets or permanent magnets, has received less attention. Magnetic manipulation holds great potential for applications in micromachines due to its contactless and direct drive force, eliminating the need for transmission and linkage mechanisms. It is particularly suitable for small-scale systems and micro/nanorobotics. In this Special Issue, we welcome manuscripts that introduce magnetic manipulation for micromachines. We anticipate that submissions will include analytical calculations and/or simulations for manipulator design, with experimental verification of the reported system. We invite contributions in the fields of microsystems, microdevices, micromanipulation, and microrobots. This includes, but is not limited to, swimming microrobots, biomedical micro/nanorobots, MEMS robots, micro-scale energy harvesters, microfluidics, and micromirror devices.

Guest Editor

Prof. Dr. Behrad Khamesee

Department of Mechanical and Mechatronics Engineering, University of Waterloo, Waterloo, ON N2L 3G1, Canada

Deadline for manuscript submissions

closed (31 December 2025)



Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/216816

Micromachines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
micromachines@mdpi.com

[mdpi.com/journal/
micromachines](https://mdpi.com/journal/micromachines)





Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



[mdpi.com/journal/
micromachines](https://mdpi.com/journal/micromachines)



About the Journal

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

Editor-in-Chief

Prof. Dr. Nam-Trung Nguyen

Queensland Quantum and Advanced Technologies Research Institute,
Griffith University, West Creek Road, Nathan, QLD 4111, Australia

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the second half of 2025).