

Robotics takes off

In a mere 50 years, robots have gone from being a topic of science fiction to becoming an integral part of modern society. They now are ubiquitous on factory floors, build complex deep-sea installations, explore icy worlds beyond the reach of humans, and assist in precision surgeries. These robots are improving our health, adding to our scientific understanding, raising productivity, and performing tasks that humans cannot do. The rapid increase in the capabilities, varieties, and applications of robots has been built on scientific and engineering research into power and actuation systems, artificial intelligence, onboard navigation, environmental sensors, manipulators, control systems, novel materials, microfluidics, systems integration, and many other advances. With this growth, the research community that is engaged in robotics has expanded globally. To help meet the need to communicate discoveries across all domains of robotics research, we are proud to announce that *Science Robotics* is open for submissions.

One measure of the growth in the field of robotics is the increasing number and size of robotics conferences. Over a dozen prominent general robotics conferences are held annually at venues around the globe, with additional domain-specific conferences being convened as well. Online conference proceedings have traditionally served the role of journals for widely disseminating the material presented at conferences, giving credit to authors for their work, and archiving results. However, as the field has matured, publishers have launched new journals to more broadly communicate results to all interested scientists, regardless of their ability to attend conferences.

Science Robotics aims to select the most groundbreaking advances in robotics across applications (such as medical, industrial, land, sea, air, space, and service), systems (such as propulsion, sensors, control, and navigation), and scales (from macro to nano) of general interest to the robotics research community and researchers working in allied fields (such as bio-inspired engineering, materials science, and novel sensing technologies).

The goal is to move the field forward and cross-fertilize different research applications and domains. The *Science Robotics* Editorial Board will screen submissions for the most original research and then apply *Science*'s rigorous peer-review process to ensure that the papers published are well worth reading. The journal will also publish invited reviews and will develop a forum to explore current policy, ethical, and social issues that affect the robotics community.

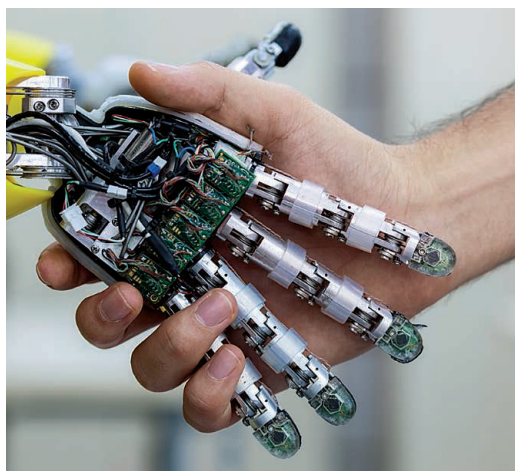
We aim to make *Science Robotics* the must-read journal for the latest discoveries in robotics that will drive the next generation of robots. To this end, our editors welcome papers on relevant advances in other disciplines with a strong potential to revolutionize the design or operation of robots. Eventually, we plan to engage with robotics educational programs, using *Science Robotics* content.

Authors are still encouraged to submit to *Science* outstanding robotics papers of interest to communities well beyond robotics researchers. We have a simple process for transferring ro-

botics papers among the various relevant journals in the *Science* family (*Science*, *Science Advances*, *Science Robotics*, and for medical robotics, *Science Translational Medicine*) that permits the reuse of reviews if reviewers agree, speeding up the process of a paper being sequentially considered at multiple journals.

Robotics is still a relatively young field. The problems prompting society to develop robotic systems to replace or extend human presence are unlikely to abate. For example, many nations face an aging population, with an insufficient number of young people to both care for the elderly and support the needs of the economy. Robots can accomplish some routine, dangerous, or high-precision jobs better than humans, thereby freeing people to do the tasks that robots cannot do. Robots are already part of our modern society and will increasingly be intertwined with us economically, technically, and perhaps, socially. *Science Robotics* seeks to help shape the future scientific, technical, ethical, and social aspects of that evolution.

– Guang-Zhong Yang and Marcia McNutt



“Robots...will increasingly be intertwined with us...”



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