New study from Harvard compares design of fuel systems for soft robots

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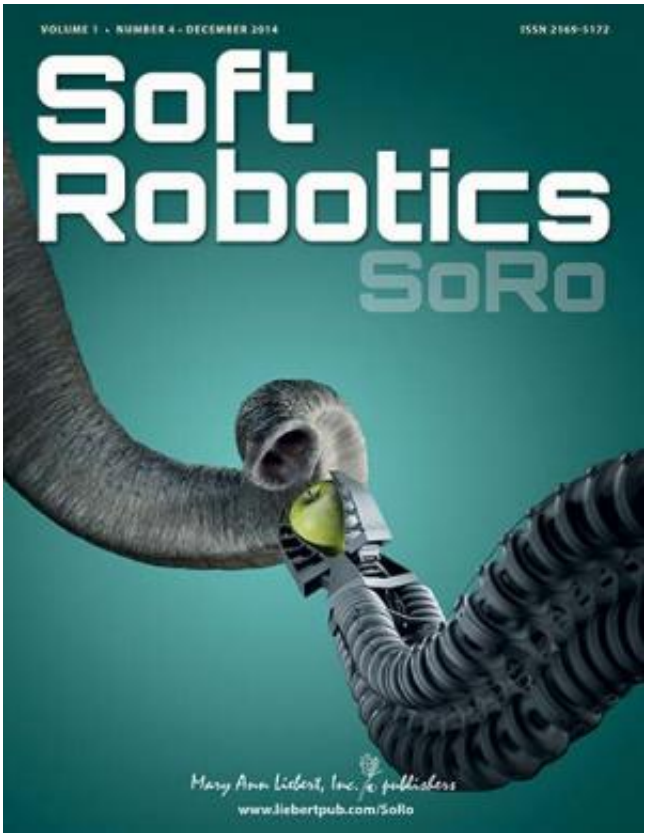

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By defining a set of key metrics to evaluate the fuel systems available to drive autonomous and wearable soft robots, a team of engineers and chemists are able to compare the advantages and limitations of current technology options. They assess various types of pneumatic energy

sources and their benefits for specific applications in an article published in *Soft Robotics*.

Michael Wehner and coauthors from Harvard University (Cambridge and Boston, MA), Oregon State University (Corvallis, OR), Carnegie Mellon University (Pittsburgh, PA), Robot G and I Research (Bedford, MA), Worcester Polytechnic Institute (Worcester, MA), and Cornell University (Ithaca, NY), characterize the most advanced pneumatic energy systems designed to power untethered and wearable soft robots based on their energy density and flow capacity, as well as noise, toxic byproducts, application-specific requirements, and the time and additional parts needed for development. The goal of the study, entitled "Pneumatic Energy Sources for Autonomous and Wearable Soft Robotics," is to provide a framework for configuring fuel systems in soft robotics.

"As soft pneumatic systems start to gain acceptance in robotic applications, it is vital that the advantages and limitations of different energy systems are fully explored. This paper provides comparisons and analysis that will useful for anyone designing such systems," says Editor-in-Chief Barry A. Trimmer, PhD, who directs the Neuromechanics and Biomimetic Devices Laboratory at Tufts University (Medford, MA).

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