



## Miga Robotics Awarded Competitive Grant from the National Science Foundation

Updated March 2021

**Miga Robotics** has been awarded a National Science Foundation (NSF) Small Business Innovation Research (SBIR) grant for **\$224,665** to conduct research and development (R&D) on **robotic devices made with Superelastic and Shape Memory Alloy wires.**

The SBIR Phase-1 project will explore the potential of using Shape Memory wires (alloys of Nickel and Titanium that contract aggressively when heated with electrical current) to deliver lighter, more efficient robotic arms and end tools to perform a variety of human tasks.

*“The NSF is proud to support the technology of the future by thinking beyond incremental developments and funding the most creative, impactful ideas across all markets and areas of science and engineering,” said Andrea Belz, Division Director of the Division of Industrial Innovation and Partnerships at NSF. “With the support of our research funds, any deep technology startup or small business can guide basic science into meaningful solutions that address tremendous needs.”*

Dr. Mark Gummin, founder of Miga Technologies, and Principal Investigator on the award notes that *“This research focuses on developing smaller, desktop-scale robotic tools with the dexterity of medical robots – without the high cost. The use of Shape Memory materials will allow further miniaturization and increased energy efficiency of those robots. These lightweight and silent materials are adaptable to a wide range of tasks: demonstrating an entirely new motion technology able to perform the tasks of even our most complex modern machines.”*

**About the National Science Foundation's Small Business Programs:** America’s Seed Fund powered by NSF awards \$200 million annually to startups and small businesses, transforming scientific discovery into products and services with commercial and societal impact. Startups working across almost all areas of science and technology can receive up to \$1.75 million to support research and development (R&D), helping de-risk technology for commercial success. America’s Seed Fund is congressionally mandated through the Small Business Innovation Research (SBIR) program. The NSF is an independent federal agency with a budget of about \$8.1 billion that supports fundamental research and education across all fields of science and engineering.

Learn more about Miga’s SBIR award here:  
[https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1938550](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1938550)

Learn about the NSF SBIR program here:  
<https://seedfund.nsf.gov/>

*Small Business Innovation Research Program Provides Seed Funding for R&D*