House Armed Services Committee
Clark, Katherine M.(D-MA) - Community Project Funding Requests

ID	Request Project Name	Recipient Name	Request Member's Request (in thousands, $000)
212	Building 2, Doriot Climatic Chambers, Exterior Repair	Natick Soldiers System Center	$3,630
214	Small Unit Digital Twin for Robotic and Sensor Systems Integration	Natick Soldiers System Center	$3,500
216	Advancing Military Exoskeleton Technology State-of-The-Art Project	Natick Soldiers System Center	$2,890

Request ID: 212

Project Name:	Building 2, Doriot Climatic Chambers, Exterior Repair	Request Nature:	Community Project Funding
Member Name:	Clark, Katherine M.(D-MA)	Member's Request: (in thousands, $000)	$3,630
Justification:	The Doriot Climatic Chambers are a key facility at the Natick Soldier Systems Center, serving as a critical component of both our human research, and product development programs. The facility has four separate environmental chambers capable of duplicating environments across the globe, and supports the entire spectrum of research, development and testing executed by the Soldier Center as well as other tenant organizations. Additionally, the Climatic Chambers support outside academia and industry through testing support agreements which allow them to use this unique facility. Although we continue to make improvements to the mission capabilities of the facility, the exterior of the building has degraded significantly, and is in dire need of repair.		
Project Purpose:	Project will replace the badly degraded façade, front entrance stairs/ramp, and roof of the Doriot Climatic Chambers		
Project City or County:	Natick	Project State:	MA
Recipient Name:	Natick Soldiers System Center	Recipient Mailing Address:	Generaaaaal Greene Ave, Natick MA 01760

ASSISTANT SPEAKER

COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON LABOR, HEALTH AND HUMAN SERVICES, EDUCATION

SUBCOMMITTEE ON LEGISLATIVE BRANCH

SUBCOMMITTEE ON TRANSPORTATION, HOUSING AND URBAN DEVELOPMENT

DEMOCRATIC STEERING AND POLICY COMMITTEE

katherineclark.house.gov

KATHERINE M. CLARK
CONGRESS OF THE UNITED STATES
5TH DISTRICT OF MASSACHUSETTS

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MALDEN, MA 02148
(617) 354-0292
FAX: (617) 354-1456

116 CONCORD STREET, SUITE 1
FRAMINGHAM, MA 01702

April 12, 2022

The Honorable Adam Smith
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

The Honorable Mike Rogers
Ranking Member
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Smith and Ranking Member Rogers,

I am requesting funding for the Doriot Climatic Chambers, Exterior Repair in the fiscal year 2023. The entity to receive funding for this project is the Natick Soldiers System Center, located at General Greene Avenue, Natick, MA 01760.

The funding would be used to replace the badly degraded façade, front entrance stairs/ramp, and roof of the Doriot Climatic Chambers. The Doriot Climatic Chambers are a key facility at the Natick Soldier Systems Center, serving as a critical component of both our human research, and product development programs. The exterior of the building has degraded significantly and is in dire need of repair.

I certify that neither I nor my immediate family has any financial interest in this project.

Sincerely,

Katherine M. Clark
Member of Congress
April 12, 2022

Request ID: 214

Project Name:	Small Unit Digital Twin for Robotic and Sensor Systems Integration	Request Nature:	Community Project Funding
Member Name:	Clark, Katherine M.(D-MA)	Member's Request: (in thousands, $000)	$3,500
Justification:	Robotic and sensor systems are a key aspect in the modern battlespace. However, integration and operation at the individual vendor system level will create a massive cognitive burden for Small Unit leaders. Deploying, controlling, and monitoring Small Unit robotic and sensor systems must integrate into the existing Small Unit workflow and C2 systems. A digital twin will enable industry to streamline their innovations for military use at the Small Unit echelon by providing a synthetic interface to the existing military Small Unit C2 systems and a synthetic battlespace for maneuver with representative use cases.		
Project Purpose:	Project will develop a Small Unit Digital Twin for Robotic and Sensor Systems. A digital twin will enable industry to rapidly integrate emerging Small Unit robotic and sensor systems into the Small Unit Command and Control (C2) system. A digital twin will also enable industry to integrate into a unified user experience for visualizing and controlling Small Unit robotic and sensor systems including aerial robotics, quadruped robotics, and unattended ground sensors.		
Project City or County:	Natick	Project State:	MA
Recipient Name:	Natick Soldiers System Center	Recipient Mailing Address:	General Greene Ave, Natick, MA 01760

ASSISTANT SPEAKER

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The Honorable Mike Rogers
Ranking Member
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Smith and Ranking Member Rogers,

I am requesting funding for the Small Unit Digital Twin for Robotic and Sensor Systems Integration project in the fiscal year 2023. The entity to receive funding for this project is the Natick Soldiers System Center, located at General Greene Avenue, Natick, MA 01760.

The funding would be used to develop a Small Unit Digital Twin for Robotic and Sensor Systems. A digital twin will enable industry to rapidly integrate emerging Small Unit robotic and sensor systems into the Small Unit Command and Control (C2) system. A digital twin will also enable industry to integrate into a unified user experience for visualizing and controlling Small Unit robotic and sensor systems including aerial robotics, quadruped robotics, and unattended ground sensors.

I certify that neither I nor my immediate family has any financial interest in this project.

Sincerely,

Katherine M. Clark

Katherine M. Clark
Member of Congress
April 12, 2022

Request ID: 216

Project Name:	Advancing Military Exoskeleton Technology State-of-The-Art Project	Request Nature:	Community Project Funding
Member Name:	Clark, Katherine M.(D-MA)	Member's Request: (in thousands, $000)	$2,890
Justification:	Exoskeleton can reduce physical strain while improving safety and endurance in numerous markets with high US military interest and NATO allies. Combat Support exoskeletons (CSE) are proving to reduce strain on back while lifting, reduce risk of injury and reduce recovery time, enabling longer sustained artillery and logistics missions. Movement and Maneuver Exoskeletons (M2E) are designed for walking/marching, Infantry Soldiers move more efficiently with the effects of load carriage reduced. By conserving energy and protecting the body from the effects of load and heavy carry, Soldiers are fresher for the fight and can sustain longer duration missions with less fatigue. This project would rely on Massachusetts-based small businesses to achieve the goal of providing a suite of advanced capabilities for demonstration at Project Convergence 2023 in October 2023. DEVCOM Soldier Center (SC) (Natick, MA), in collaboration with Boston Engineering (BE) (Waltham, MA) and the University of Massachusetts Lowell (UML), have been testing and evaluating exoskeleton systems for over a decade and have demonstrated both significant physiological benefits in the laboratory and high Soldier acceptance. The results of a recent Soldier evaluations provided key design guidelines for contractors of interest partnered with Boston Engineering, to include Dephy, Inc. (Maynard, MA). Dephy has outlined plans to upgrade their ExoBoot in a way that constitutes a significant leap in technology and the broadening of the applicable use-case by making the system lighter, smaller, and more ruggedized. In addition, Verve Motion (Cambridge, MA) boasts a one-of-a-kind robotic upper body lift support exoskeleton. In collaboration with BE, and UML, the prototypes will be evaluated and optimized. Other similar companies are rapidly establishing more solid partnership with BE to establish MA-based presence to further expand the portfolio of exoskeletons for the Army and DoD. Boston Engineering Corporation will provide program management oversight, perform engineering/safety analysis, and lead Soldier evaluations to gather relevant data. Under BE’s program management Dephy will upgrade ExoBoot software and hardware based on soldier feedback and Verve Motion will integrate their powered combat support exoskeleton into military kit. UML will conduct biomechanical laboratory evaluations to verify and validate performance. BE will also assess for potential MA-based manufacturability. Boston Engineering, based in Waltham, MA has years of experience under an OTA with DEVCOM SC, testing and evaluating commercial exoskeletons for safety and sound engineering. They also have experience organizing and running successful STPs. University of Massachusetts, Lowell, (Lowell, MA) has experience with analyzing the biomechanics and physiological benefits of exoskeletons in a laboratory setting.		
Project Purpose:	Advance and demonstrate state-of-the-art of military exoskeletons for Combat Support, Logistics and Infantry movement and maneuver		
Project City or County:	Natick	Project State:	MA
Recipient Name:	Natick Soldiers System Center	Recipient Mailing Address:	General Greene Ave, Natick, MA 01760

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The Honorable Mike Rogers
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U.S. House of Representatives
Washington, DC 20515

Dear Chairman Smith and Ranking Member Rogers,

I am requesting funding for the Advancing Military Exoskeleton Technology State-of-The-Art project in the fiscal year 2023. The entity to receive funding for this project is the Natick Soldiers System Center, located at General Greene Avenue, Natick, MA 01760.

The funding would be used to advance and demonstrate state-of-the-art of military exoskeletons for combat support and logistics and infantry movement and maneuver. This project would rely on Massachusetts-based small businesses to achieve the goal of providing a suite of advanced capabilities for demonstration at Project Convergence 2023 in October 2023. DEVCOM Soldier Center (SC) (Natick, MA), in collaboration with Boston Engineering (BE) (Waltham, MA) and the University of Massachusetts Lowell (UML), have been testing and evaluating exoskeleton systems for over a decade and have demonstrated both significant physiological benefits in the laboratory and high Soldier acceptance.

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Sincerely,

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April 12, 2022