

# Technology brings collaborative STEM learning to pandemic-isolated students

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A Purdue University startup is turning gameplay into serious learning for elementary students away from classrooms during the COVID-19 pandemic. Explore Interactive markets an augmented reality platform to help students learn about science, technology, engineering and mathematics (STEM). Credit: Amanda Thompson/Explore Interactive

A Purdue University startup is turning gameplay into serious learning for elementary students away from classrooms during the COVID-19 pandemic.

Explore Interactive markets an [augmented reality platform](#) to help students learn about [science](#), technology, engineering and mathematics (STEM).

The team conducted [educational research](#) with researchers at the INSPIRE Research Institute for Pre-College Engineering at Purdue under SBIR funding from National Science Foundation, the National Institutes of Health and Elevate Ventures.

Now, the founders of the startup have partnered with the Museum of Science, Boston, and Homewood Science Center, located near Chicago, to host a virtual STEM camp.

The virtual camp will take place the first week of August for students 8-12 years of age. It will include virtual sessions, and then the students will complete projects on their own.

"Our newest product, MindLabs, extends the foundational Explore platform to allow kids to collaborate remotely on engineering and design of circuits," said Amanda Thompson, CEO of Explore Interactive.

Explore Interactive has worked with educators and [elementary students](#) from across the U.S. in the development of the MindLabs platform, which lets children work together to solve hands-on STEM challenges and conduct open-ended design and play.

"There is no better time to empower racially and ethnically diverse children to see themselves as scientists," said Heather Gunsallus, vice president of STEM education at the Museum of Science, Boston. "The

team at the Museum of Science, Boston, is thrilled to support the vital work of Purdue, Explore Interactive and Homewood Science Center with the students in Chicago's Southland."

Thompson said MindLabs platform unlocks the potential of augmented reality to deliver analytics of soft skills like collaboration and hard skills like systems thinking through applied, hands-on design and troubleshooting, a far more effective approach compared to worksheets and multiple choice tests.

"In spite of these challenging times, we are able to fulfill our mission of inspiring scientific wonder, learning and pursuit," said Edie Dobrez, executive director of the Homewood Science Center. "We are honored to work with esteemed colleagues at Purdue and the Museum of Science, Boston, to offer Augmented Reality: Northern Lights for our racially and ethnically diverse [student](#) population in Chicago's Southland."

Explore has received support and guidance from the Purdue Foundry, an entrepreneurship and commercialization hub housed in the Convergence Center for Innovation and Collaboration in Purdue's Discovery Park District, adjacent to the Purdue campus.

"In the current remote learning environment, MindLabs is a solution for teachers who have very limited options for students to engage collaboratively on STEM projects," Thompson said.

Provided by Purdue University

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