



SUPERCHARGE: STEM-based University Pathway Encouraging Relationships with Chicago High schools in Automation, Robotics and Green Energy

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NSF Award Number: 2148429

Dates: 2022-2026

Project type: Developing and Testing Innovations

Project URL: No website yet

Project Overview: An interdisciplinary team of faculty and staff at Illinois State University (ISU) is collaborating with Chicago Public Schools (CPS) and Community-Based-Organizations (CBOs) in four Chicago neighborhoods to develop an after-school STEM program focused on renewable energy, robotics, and automation.

We are at the beginning stages of our project, but we have found that micro:bit pocket-sized computers are an engaging and fun way for students to learn about programming and robotic systems.

Lessons Learned & Insights Gained

Recruiting teachers has been unique to each site. Our community-based partners have been an important piece of this puzzle in some sites, and school administrators have been key in others.

Equity

Creating programming that is reflective of each community's assets is central to our project. Learning about the resources in each community is important to the work ahead and our community partners have been important but are not necessarily aware of STEM businesses and leaders specifically.

New Challenges & Next Steps

The undergraduate students in our project are at different points in their educational careers and they have different backgrounds. As we shift into activity design from our initial work getting to know the microcontroller kits, supporting them with an activity template and model activities will be important.