Request for Proposals

Uplands Digital Fabrication Lab Initiative

Regional Opportunity Initiatives (ROI) is seeking schools within the 11-county Indiana Uplands region that are ready to expand student learning opportunities through an on-site digital fabrication lab. Selected schools will receive up to $20,000 in funding for equipment and resources and will become an active member in the Uplands Digital Fabrication Network. Each participating school will receive technical assistance and implementation support from ROI, as well as professional learning (required) and ongoing support.

Background and Rationale

The Indiana Uplands is a region of makers. As STEM-related industries continue to grow, students benefit from learning experiences that develop critical thinking, creativity, collaboration, communication, and problem-solving skills. Regional Opportunity Initiatives' (ROI) Occupational Needs Assessments (ONA) consistently highlight the importance of preparing students with the knowledge, skills, and experiences needed to succeed in the region's key industries, including advanced manufacturing, life sciences, and national security and defense.

A key finding of the ONA is that STEM-related skills are highly transferable across industries and occupations. Students who develop competencies in problem solving, design thinking, collaboration, communication, and emerging technologies are better prepared for success in a wide range of career pathways. Hands-on STEM learning experiences can also help students discover interests and aptitudes in STEM fields that are highly relevant to the career opportunities in the region.

Since 2020, ROI has invested in thirteen digital fabrication labs throughout the Indiana Uplands. Through two cohorts of the Uplands Digital Fabrication Labs initiative, schools across the region have expanded opportunities for students to engage in hands-on learning that develops both technical and durable skills. As the initiative enters its third cohort, ROI seeks to build on this foundation by supporting schools that are ready to strengthen opportunities for students and join the existing lab network.

Digital Fabrication Lab Description

A Digital Fabrication Lab is a hands-on learning environment where students develop technical and durable skills through authentic, project-based learning. Students work individually and in teams to solve real-world problems connected to academic content, often in partnership with local industry and community organizations. Digital Fabrication Labs also serve as flexible learning spaces where students and teachers from across disciplines can extend classroom learning through hands-on design, prototyping, and problem-solving experiences. Through the process of designing, building, testing, and refining solutions, students learn to think critically, collaborate effectively, communicate ideas, and adapt to challenges.

While every Uplands Digital Fabrication Lab is unique, all labs share a common model that combines digital fabrication technologies with creative workspace to support innovation and problem solving. Every lab includes core digital fabrication technologies such as 3D printing, laser cutting, vinyl cutting, electronics and physical computing, CNC machining at its generally included at the high school level, Uplands Digital Fabrication Labs also provide access to hand tools, power tools, and flexible workspace where students can design, prototype, create, and learn by doing.

While equipment is an important component of a digital fabrication lab, the primary purpose is student learning and real-world application. Effective labs integrate design thinking, project-based learning, and authentic problem solving into classroom instruction. Through these experiences, students build both technical competencies and the durable skills needed for future success in education, careers, and life.

Uplands Digital Fabrication Labs Implementation Rubric

The Uplands Digital Fabrication Labs Implementation Rubric [link] provides a common framework for understanding, implementing, and strengthening Digital Fabrication Labs across the Indiana Uplands. Designed as a tool for reflection and continuous improvement, the rubric helps schools identify strengths, celebrate successes, and prioritize opportunities for growth.

The rubric describes three stages of implementation: Growing, Grounded, and Guiding. These stages recognize that every lab is at a different point in its journey and provide a shared language for discussing priorities, progress, and program development.

Selected schools will complete a self-assessment using the Uplands Digital Fabrication Labs Implementation Rubric prior to implementation and share the results with ROI. Schools will use the rubric throughout the implementation process to guide planning, professional learning, equipment investments, and instructional practices. At the conclusion of grant implementation, grantees will complete the rubric again to reflect on growth and identify future goals.

Lab Specialist and Innovation Team

Successful Uplands Digital Fabrication Labs are supported by a team of educators committed to expanding student access to high-quality, hands-on learning experiences. Applicants should identify one faculty member to serve as the Lab Specialist (lead teacher) and three to four additional faculty and staff members to serve on the Innovation Team.

The Lab Specialist will serve as the primary point of contact for the initiative and will help coordinate implementation, professional learning, equipment integration, and ongoing program development. Innovation Team members will support the growth and sustainability of the lab through collaboration, planning, and instructional implementation.

Together, the Specialist and Innovation Team will participate in required training, engage in the Uplands Digital Fabrication Labs Implementation Rubric process, and work to expand meaningful opportunities for students to engage in project-based learning and digital fabrication experiences.

Funding and Support

Selected schools will receive up to $20,000 to create a digital fabrication lab. Funding is intended to support the acquisition of equipment, tools, furnishings, and other resources for the Uplands Digital Fabrication Lab model and associated opportunities for increasing student learning. Schools will be responsible for other expenses necessary to support implementation, such as facility and personnel related costs.

In addition to funding, selected schools will receive:

- Professional learning and training to support implementation of the Uplands Digital Fabrication Lab model.
    - Required for the Lab Specialist, Innovation Team members, and administrator.
    - Tailored to the needs of each participating school.
    - Four days of training per person, in two, two-day sessions.
- Implementation coaching and support throughout the process.
- Membership in the Uplands Digital Fabrication Lab Network, including opportunities for collaboration, resource sharing, and ongoing professional learning.

Site Visit Evaluations

Well-positioned applicants will have an existing or emerging makerspace, STEM lab, engineering program, or innovation space that is ready to level up in pedagogy and implementation. Site visits will be a part of the proposal review process. If your school is selected as a finalist, ROI will contact the school district to schedule a site visit. Visits will include a tour of potential space and a question-and-answer session with school leadership, the potential Lab Specialist, and potential members of the Innovation Team. Site visits may take up to one hour.

Timeline

November 16, 2026	Request for Proposals Released
December 18, 2026	Applications Due
January 2027	Application Review and Site Visits
February 1, 2027	Selected Schools are Notified
February - March	Initial Rubric Assessment, Training & Equipment Selection
March - May	Equipment Setup, Implementation Support & Coaching
Fall 2027 and beyond	Uplands Digital Fabrication Network Engagement

Application Process

Applications can be submitted via ROI's online grant portal HERE.

https://www.grantinterface.com/Home/Logon?urlkey=roi

New users will need to create an account to access the application form, which requires the organization's Tax ID number. If the Tax ID is not available, applicants may temporarily enter "00-0000000" in the required field.

Questions? Contact:

Emily Menkedick, Director of Innovative Learning, emily@regionalopportunityinc.org