# HOW TO START A MAKERSPACE



We bring hands-on learning to life.

## Why a Makerspace?

#### What is a Makerspace?

STEM education has come alive with the maker movement, which encourages hands-on learning and creative problem-solving. Makerspaces give people the power to bring their ideas to life through engineering, design, experimentation, and refinement of prototypes. Makerspaces have opened up a world of invention, allowing students to turn ideas into reality.

#### Why Do We Need Makerspaces?

The US Dept of Labor has reported that STEM occupations are rising and rapidly outgrowing other career fields. In 2021, there were 10 million workers in these positions - anticipated to increase by 11% come 2031. A bonus for those entering this field is higher wage potential, with median annual earnings reaching \$95K compared to non-STEM's average at just over \$40K annually. With STEM qualifications ranging from technical know-how to fostering innovation, educators are being called upon to equip students of all backgrounds with the necessary skillsets and guidance needed in this ever-evolving job market.

The 21st-century labor market is presents modern students with the challenge of developing the skills necessary to tackle jobs that have yet to be created. For college and career readiness, they must cultivate technical literacy while simultaneously focusing on employability capabilities.

#### **Makerspaces Help Students:**

Practice employability skills

Take ownership and pride in their work

Gain knowledge through hands-on learning

Become producers instead of consumers

Feel safe to fail

# Types of Makerspaces



#### **Dedicated Space**

When most people think of a makerspace in an educational setting, they think of a dedicated space. A makerspace may also be referred to as a STEM Lab, Ideation Lab, Innovation Center, FabLab, or any other name the academic community decides.



#### **Media Center Makerspaces**

The media center is often a hub of creative and resourceful activity, so many schools are introducing makerspaces within these areas. This has advantages as media center staff can maintain it, and teachers can also check out items from there or take their students into the space.



#### **Maker Carts**

If space is in limited supply or the environment is not conducive to a maker environment, "maker carts" could be the perfect solution. These innovative carts allow easy rolling from one classroom to another with all of your supplies and materials inside bins and boxes on each cart, enabling students to stay put while you switch things up.





# **Plan Your Space**

Every makerspace is as unique and personalized as the building it's housed in! Injecting your community's culture into a makerspace can be an inspiring source of motivation for students and educators alike to create and invent.

#### **Tips to Plan Your Space**

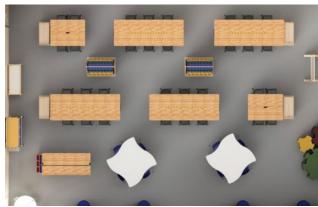
- Consider who the audience will be. The primary users of the space will determine what type of furniture and equipment is used.
- **Consider storage.** Will students be working on projects over multiple days? If so, open or transparent storage may be considered for student projects and consumable materials.
- **Ask for input.** Create a committee or focus group on getting input from teachers, students, and community members. Teachers are more likely to use a space if their voice is heard.
- **Consider Curriculum.** By designing the right curriculum, we can give students unique opportunities for hands-on learning that builds essential skills in STEM.

#### **3D Visualizations**

As part of our proposal process, our talented team of designers and 3D modelers craft 3D images that show what your finished makerspace could look like - from the type of furniture to the wall colors, everything can be customized to meet your vision. We believe in creating spaces that inspire creativity and innovation, and our 1st Maker Space proposal helps you realize that goal.













## **Secure Funding**

You have a vision. You have dreamed the dream of students making and creating rather than just doing what they have always done. You want a makerspace. Most of our clients' big question is: how do we pay for one?

Finding funding for something new and innovative in a school culture that doesn't support innovative spending can take time and effort. Navigating grants, donations, school budgets, and yearly changes is challenging. At 1st Maker Space, we want to make it easy to fund your makerspace by helping you find the funding to ignite your makerspace.

#### **Tips to Fund Your Space:**

- Connect with local small and large businesses for sponsorship support. We've seen many makerspaces funded through partnering with local businesses.
- Apply for local educational foundation grants. Local educational foundations can fund anything from an entire makerspace to small equipment like a 3D printer or Dash and Dot Robots.
- Include your makerspace in your Title IV, Part A Application. 1st
  Maker Space is recommended for Title IV purchases through
  Indiana's Department of Education. Makerspace items that focus
  on incorporating STEM fall into the bucket "A" of the Title IV, Part A
  allocation.
- Ask for supply donations. When engaged, many community members are happy to donate specific recyclables and consumables (like markers, beads, and rulers).

**INTERESTED IN FUNDING?** Are you interested in any of these funding sources? Ist Maker Space would be proud to partner with you to write any of these grants and more to make your vision come to life. We are passionate about supporting innovative and creative learning environments for students. We have the knowledge, experience, and resources to help you find the funding needed to make it happen.



# Gain Buy-in From Staff & Community Members

How can you get the staff excited about the new makerspace? Invite them to the new makerspace to tinker and play! Consider using a boxed kit like Bristlebots to create a fun tinkering experience that will allow teachers to see how making is fun and can connect to the Indiana Academic Standards. Allow each person to take their gadget or gizmo back to their classroom and proudly display it as evidence that they are a **MAKER**!



#### Why Make Staff a Part of the Process?

oı) It's Fun

We must reinvigorate the teaching experience, and that starts with teachers! Invite them to collaborate on designing an innovative makerspace where students can actively learn in a fun environment.

O2 Advocacy

Get your staff involved in the project empower them to create a makerspace they believe in. Ask for their feedback and ideas, helping you collaborate with one another as advocates of making!

os Marketing

Unlock the potential of your educators by giving them a platform to share their innovative teaching strategies, cool projects created in the makerspace, and inspiring classroom experiences.



# **Build a Makerspace**

Once you have worked with 1st Maker Space to design your ideal space, secure funding, and bring the staff along, leave the rest to us! We provide an all-inclusive service that handles everything from ordering and delivery to unpacking and set-up. This lets you focus on what matters: igniting student innovation through hands-on learning.













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# **Implement Making**

With the hard work of building a makerspace behind us, it's time to start implementation and begin exploring all that maker culture has to offer. The beauty of the movement is its ever-changing nature - there are always new skills or techniques to discover! Let's use this opportunity as an open invitation for growth.

1st Maker Space offers a curriculum for Elementary, Middle, and High School paired with STEM Programs and professional development to give maker managers the training they need to implement maker-centered learning.



#### **Continuing to Learn:**

- Join us for four intensive training days at our summer Maker Manager Program. We'll guide you through developing, assessing, and sustaining a makerspace, STEM Lab, or innovation space. We cover everything from the basics of the maker movement to practical skills like managing your space and safety practices.
- Attend maker-related professional development. 1st Maker Space hosts at least one monthly professional development event focused on a different tool, curriculum idea, or strategy.
- Consider e-coaching. All new maker managers would benefit from our Professional Development Specialists.
- Join our email list. Our team sends weekly updates on the maker movement and equipment pricing specials.
- Follow us on social media @Istmakerspace. We have curated an online community of makers inviting you to join to share ideas, give feedback, and find inspiration.







#### Additional Makerspace Resources



- Free Maker Curriculum
- >> Instructional Videos
- Makerspace Blog
- Newsletter
- >> 1st Maker Space Catalog
- Makerspace Services
- Makerspace Research
- >> 1st Maker Space Portfolio

# READY TO TAKE YOUR STEM PROGRAM TO THE NEXT LEVEL?

Our friendly and knowledgeable sales team is eager and ready to help you get started with a makerspace. Let's discuss how we can support your organization in reaching its goals! From providing equipment and supplies to helping you develop a comprehensive makerspace strategy, we have the experience and expertise necessary to make it happen. We're available to answer any questions you may have, provide guidance on how to equip your space, and more. Contact us today and let's get started!

**Phone:** 317-399-5001

Email: info@lstmakerspace.com
Website: lstmakerspace.com

Social: @1stmakerspace

**1st Maker Space** 9059 Technology Lane Fishers, IN 46038

