

# MAKER SPACE Design. Build. Sustain.

**Architects Guide** to a Makerspace



### Your first makerspace is free.

It is between your ears.

Designing a space for individuals to make and learn together in new ways is both the challenge and inspiration of an architect. At 1st Maker Space, we have been designing, maintaining, and sustaining makerspace, STEM Labs, and innovation spaces for five years. We have partnered with schools of all types as well as community centers to create unique spaces that meets the needs of all stakeholders. We have worked alongside architecture firms to design and deliver spaces that surpass our client's expectations. The makerspace may be one part of your whole building project, but makerspaces are all that we do.

Here are some tips for designing a makerspace or STEM lab:



## **Consider Zones**

Learning and working zones are an important part of a makerspace. Will it be used for whole group instruction or as a dropin project space?

Many makerspaces have separate dirty and clean spaces, and that is extremely beneficial for large community spaces where both metal and woodshop tools are being used.



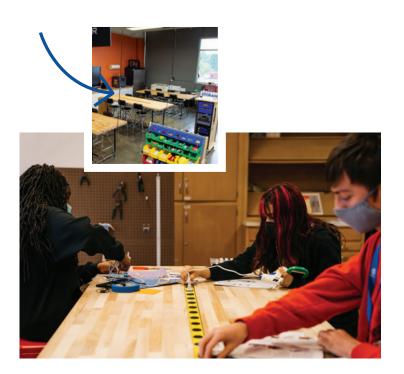
Building/Construction Zone

Fabrication Zone (for Laser Cutter and other large equipment)

3D Printing Zone Design Thinking

## **Electricity**

More electricity is always better. Makerspaces are often described as "shop class meets the digital age". The space will be used for large equipment as well as small laptops and glue guns. Ceiling drops for table plug-ins should be considered depending on the furniture selected.



### **Hard Floors**

Makers make messes, and hard floors allow easy cleanup. In media center and library makerspaces, carpet tiles are often ideal to dampen sound, but in almost all other scenarios, hard floors are the best fit.



## **Ventilation**

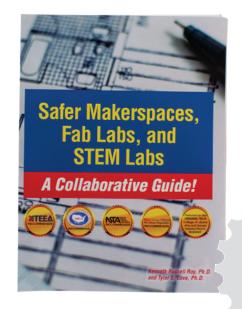
Several things in the makerspace may require additional ventilation to keep the users safe. Laser cutters can be found in almost every makerspace and STEM Lab, but they require exterior exhaust. Consider how a vent may be installed through a wall or ceiling and back to the laser cutter. Similarly, tools like a CNC mill, drill press, and other woodshop tools may generate dust and may warrant a dust management system. A portable system can also be considered depending on the tools chosen and the use case of the space.



## **Safety**

Safety is always our highest priority. The operation of tools may present safety hazards that need to be addressed using space and purposeful design. We offer our clients a detailed book on makerspace safety named Safer Makerspaces, Fab Labs, and STEM Labs which is the modern standard for safety in a makerspace.

#### Contact us for your FREE copy today.



## **Storage**

Storage is often a premium in a makerspace, but cabinet storage is not always ideal. Our clients prefer clear and open storage in addition to cabinets so they can see what is being stored, and so students can have direct and open access to a variety of materials. 1st Maker Space has designed multiple storage solutions to fit the needs of makerspaces. These mobile solutions are ideal for all grade levels and can be used for both material and project storage. Our 3D models are also available upon request.

Examples of our furniture and storage solutions can be found on our website:

https://1stmakerspace.com/collections/furniture







## Partner with us

Partnering with 1st Maker Space is an easy way to ensure that you are designing an innovative and custom makerspace that will surpass your client's expectations. Makerspaces are a collaborative effort and succeed best when potential users of the space are involved early in the decision-making process. Bring the best to your clients by partnering with 1st Maker Space.

#### **OUR TEAM**

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