

CITC Fab Lab



CITC's fabrication laboratory (Fab Lab) is a digital fabrication resource center where students and community members use high-tech design programs, industrial-grade manufacturing machines and electronic and programming tools to transform ideas into reality.

Created in partnership with the Massachusetts Institute of Technology (MIT), this new educational space challenges CITC youth to connect to their full science, technology, engineering and mathematics

(STEM) potential. Using tools and techniques that merge architecture and construction, students bring traditional concepts and understanding to 21st Century programming, design and fabrication. A sample of the computer numerical controlled (CNC) machines in Fab Lab includes:

- **laser-powered cutter** and etcher that works with wood, acrylic and other materials
- A **vinyl cutter** used for graphics and masking applications
- a mini **desktop milling machine** that plots copper and other materials to make antennae, circuit boards and more
- large **robotic router system**
- an industrial **embroidery machine**
- **3D printers** capable of producing fully assembled objects with moving parts

A vibrant, living exchange for creative innovation, CITC Fab Lab also draws researchers, engineers and designers from our community who share experiences and problem-solving techniques and provide a communal education model in place of a fixed curriculum.

CITC student participants are using the Fab Lab to:

- manufacture innovative new designs for traditional birch bowls
- learn to balance stability, structural integrity and efficiency in 3D kayak design
- create 2D and 3D toys, graphics and art pieces from newly milled plastic
- harness renewable energies through the construction of a model wind turbine
- ... and much, much more!

Schedule a tour of CITC Fab Lab today!

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