

IGNITING The Mind

Hardesty Center For
Fab Lab Tulsa
2013 Annual Report



It's starts with the spark of an idea.

A "what if" that becomes "let's do it."

That challenges the current thinking

until it isn't current anymore.

Welcome to Fab Lab Tulsa.



A Message from the Executive Director

Dear Friends,

We are proud to report that the Hardesty Center for Fab Lab Tulsa had a tremendous year of growth and accomplishments in 2013. Nowhere was this more apparent than in the rising scope, scale and sophistication of the projects undertaken by our lab members in the two quick years since the opening of the lab in 2011.

In 2013, Fab Lab Tulsa expanded its STEM education program with over 2,500 local students from elementary schools to colleges visiting the lab. We assisted numerous businesses and entrepreneurs with rapid prototyping and micro-manufacturing their products, including the 1st and 2nd place winners of the TCC Startup Cup, CleanNG and Two Guys Bowties, respectively. We continued to be a hub for the creative innovators in our community with over 16,000 visits to the lab. And we hosted the first Tulsa Mini Maker Faire, welcoming over 100 makers and nearly 1,000 attendees to the growing maker movement.

The fall awards season brought a number of recognitions for Fab Lab Tulsa. The lab received a TYPros Boomtown Award in the Visionaries category, which honors entrepreneurial and innovative thinking to organically grow Tulsa's workforce. The Leadership Tulsa Paragon Award was given to board member Frank Mulhern for his work in developing our STEM education program. And I was honored to receive a Tulse Award as Service Provider of the Year for supporting the entrepreneurs of the Tulsa region.

Looking ahead to 2014, Fab Lab Tulsa will continue to be a spark for the community of individuals, students, educators and businesses who utilize the tools and resources of the lab. We hope you will join us in our endeavor as we ignite young minds.

Sincerely,

Nathan Pritchett

Mission

The mission of Fab Lab Tulsa is to better our community by assuring access to 21st Century tools, equipment, technology and resources.

About Us

The Hardesty Center for Fab Lab Tulsa is an IRS qualified 501(c) (3) tax exempt, not-for-profit entity located in the Kendall-Whittier neighborhood of Tulsa. Fab Lab Tulsa provides community access to advanced manufacturing and digital fabrication tools for learning skills, developing inventions, creating businesses and producing personalized products. Fab Lab Tulsa is one of over 150 MIT-chartered Fab Labs in more than 40 countries and the first in the southeastern region of the United States. Furthermore, Fab Lab Tulsa is one of the top labs globally in terms of leadership, organization, support, size and capabilities, and an excellent example of the impact a Fab Lab can make on a community.

Fab Lab Concept

The Fab Lab concept was developed at MIT by Professor Neil Gershenfeld while teaching a very popular course titled "How to Make Almost Anything." After giving his students access to basic cutting, milling and electronic tools, he found that, not surprisingly, there was no end to what his students could create. Inspired by the transformative results, Dr. Gershenfeld encouraged others to open Fab Lab's in their communities.

01

Education

The K-12 STEM education program at Fab Lab Tulsa enables educators to introduce and illustrate a variety of engineering disciplines, including mechanical, electrical, chemical and structural engineering, as well as computer science, math and art. Students learn how to design, build, test and refine their ideas through hands-on experience with 2D and 3D design software and digital fabrication tools. Educational programs at Fab Lab Tulsa focus on building skills in core subjects, as well as applied problem-solving, critical thinking and creativity, all of which are critically important in the modern economy.

2,627 - Student Visits

159 - Classes Held

492 - Hours of Instruction

02

Business

The entrepreneur and business outreach program at Fab Lab Tulsa brings the spirit of innovation directly to business and industry by providing a high-quality, low-cost, low-risk method of rapid prototyping and micro-manufacturing of new products. Fab Lab Tulsa is a hub for inventors and we strive to provide a creative environment that fosters innovation and economic development, and to encourage start-up companies to grow beyond rather than within the lab.

635 - High-Precision Rapid Prototypes



03 **Community**

As a community center, Fab Lab Tulsa is a resource for local technology enthusiasts who span a broad spectrum from hobbyists and tinkerers, to artists and designers, to engineers and scientists. Individual members with creative ideas bring them to fruition with the labs equipment, tools and resources. Programming for individual members includes entry-level and advanced classes to train and certify them in the various skills required to safely use the facility and operate the equipment without supervision.

951,880 - Population Served

264 - Registered Members

16,628 - Annual Lab Visits

67 - Average Visits Per Day

Board of Directors

Officers:

Robert Fitz-Patrick - President
Marjorie Atwood - Vice President
Kathleen Cordell - Treasurer
Bill Young - Secretary

Directors:

Stephen Jackson
Deidra Kirtley
Frank Mulhern
Matt Norris
Winston Peraza
Scott Phillips
Lisa Regan
Dana Wilkes
Blake Matthews

Emeritus Directors:

Jeff Gettys
Micah Kordsmeier
Dan Moran
Diana Norris
Anne Pollard-James
Robert Strattan

Staff

Nathan Pritchett – Executive Director
Dan Moran – Lab Manager
Andrew Harmon – Lab Technician

01

Education

Student Power Drives Human-Powered Vehicle

When given the tools and the proper guidance, there's no end to what young students can design and create. A group of seventh grade students from McLain Junior High School in Tulsa proved just that. Over a three-month period, the students designed different prototypes for a human-powered vehicle, weighed the pros and cons of each prototype, and then used digital tools to build all the elements. The vehicle parts were fabricated on Fab Lab Tulsa's 3-axis milling machine and assembled by the students with hand and power tools.

After testing, the vehicle, which featured front wheel steering through a cable system, was proudly displayed to the entire student body at McLain's field day.

$$\begin{array}{r} 26 \\ +33 \\ \hline 59 \end{array}$$
$$3 \overline{)12}$$
$$6+9$$
$$15 \div 3 = 5$$

$$\begin{array}{r} 36 \\ -12 \\ \hline =15 \end{array}$$

$$12+5=17$$



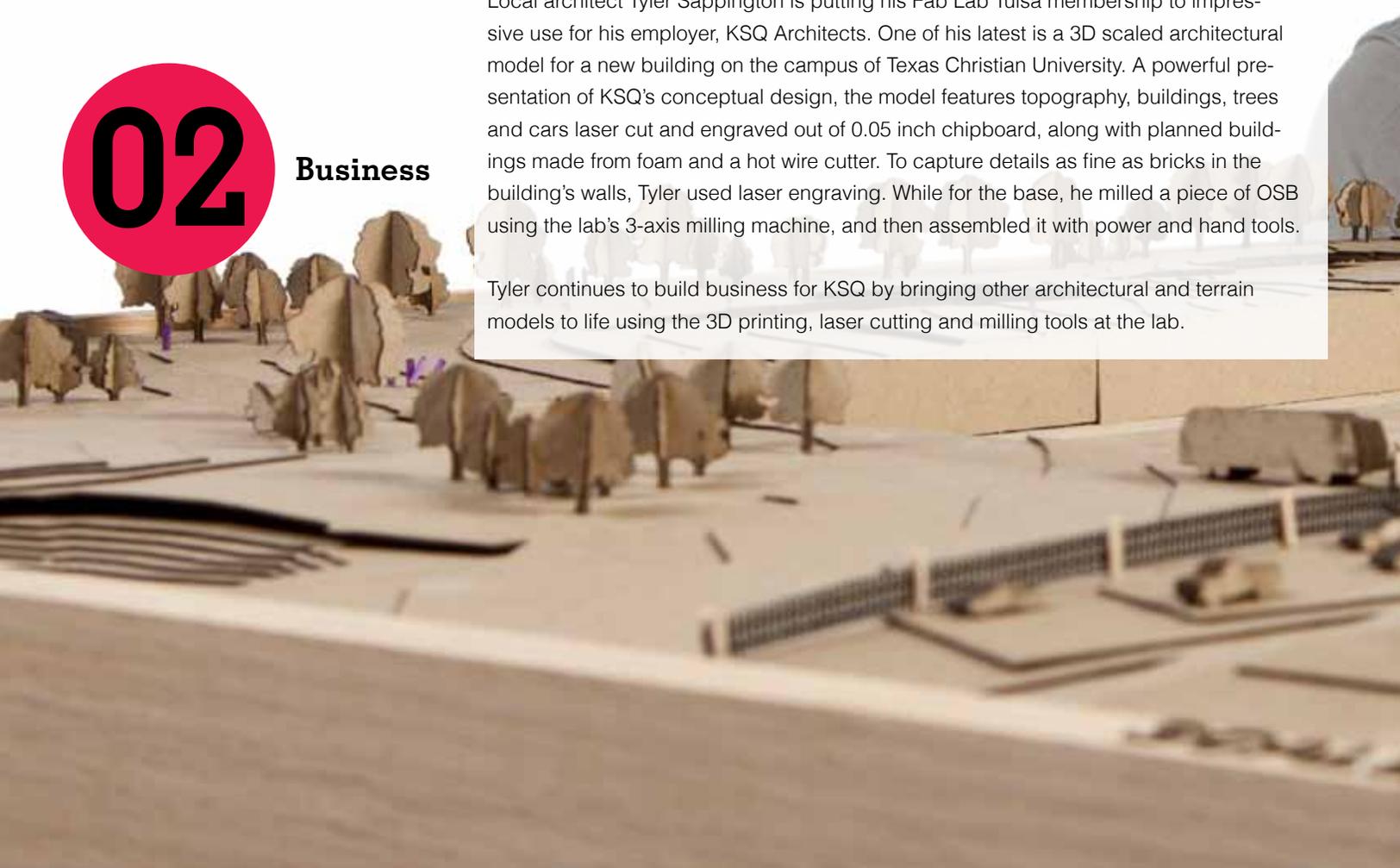
02

Business

Building New Business for Tulsa

Local architect Tyler Sappington is putting his Fab Lab Tulsa membership to impressive use for his employer, KSQ Architects. One of his latest is a 3D scaled architectural model for a new building on the campus of Texas Christian University. A powerful presentation of KSQ's conceptual design, the model features topography, buildings, trees and cars laser cut and engraved out of 0.05 inch chipboard, along with planned buildings made from foam and a hot wire cutter. To capture details as fine as bricks in the building's walls, Tyler used laser engraving. While for the base, he milled a piece of OSB using the lab's 3-axis milling machine, and then assembled it with power and hand tools.

Tyler continues to build business for KSQ by bringing other architectural and terrain models to life using the 3D printing, laser cutting and milling tools at the lab.







03

Community

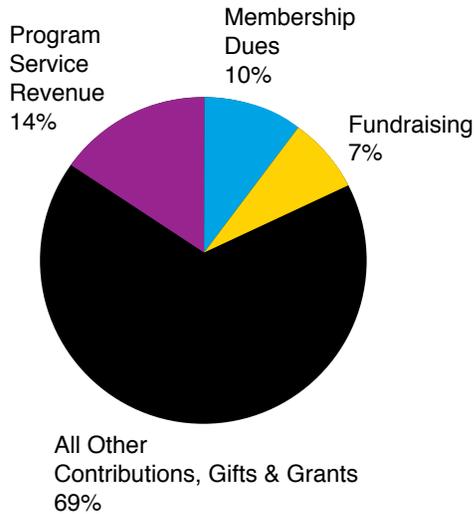
Strumming to His Own Beat

For artist and music-lover David Majestic, being a Fab Lab Tulsa member provides a virtually limitless environment to design and create custom guitars. Using the tools and resources at the lab, David is able to craft beautifully unique guitars in a fraction of the time it would take otherwise. He begins each project by designing the guitar profile first, using his experience as an instructor in computer-aided design software. He then mills the body from hand-laminated solid hardwood blocks on Fab Lab Tulsa's 3-axis milling machine. Finally, by experimenting with laser-engraved designs, reclaimed and repurposed materials, and a variety of wood inlays, paints and finishes, he creates guitars that are works of art in their own right.

Best of all, by incorporating project-based learning into his class instruction at ITT-Tech, David is teaching the next generation the same skills. As part of learning new software, the students design custom furniture that is ultimately fabricated on the machines at Fab Lab Tulsa.

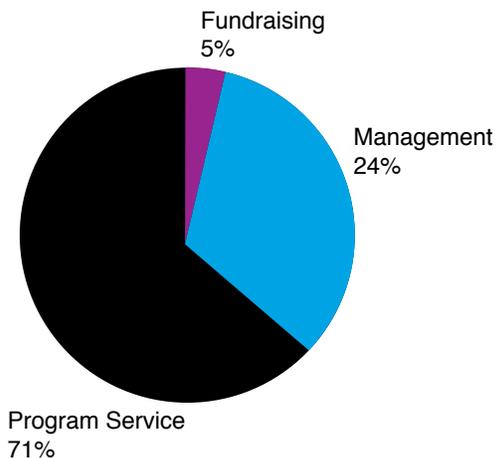


Where dollars come from:



2013 Financial Review

Where the dollars are invested:



Revenue

Contributions Gifts & Grants	\$24,155.50
Membership dues	17,386.00
Fundraising events	173,015.10
All other contributions, gifts & grants	35,909.59
Total Revenue	\$250,466.19

Expenses

Salaries & wages	\$103,114.12
Payroll taxes	7,888.60
Professional & accounting fees	7,236.00
Advertising & promotion	4,294.68
Office expenses	10,853.45
Information technology	6,737.59
Occupancy	49,964.34
Travel	1,902.68
Conferences, conventions, meetings	2,005.50
Insurance	4,343.73
Shop consumables	12,587.60
3D printer resin	5,327.24
Education materials	6,723.24
Bank charges	361.31
Total Expenses	\$223,457.15

Change in Net Assets

\$27,009.04

Statement of Financial Position

Total current assets	155,883.95
Net property & Equipment	107,876.04
Total Assets	\$263,759.99
Total Liabilities	1,219.21
Unrestricted net assets	262,540.78
Total net assets	\$263,759.99

Unaudited Financial Statement

Thank you

Master Maker

Hardesty Family Foundation | H.A. and Mary K. Chapman Charitable Trust

Journeyman

The Sharna and Irvin Frank Foundation | Lobeck Taylor Family Foundation
| The Anne and Henry Zarrow Foundation

Craftsman

The Albert and Hete Barthelmes Foundation | The Helmerich Trust | Hilti |
The Kerr Foundation | George R. Kravis II | Oklahoma Innovation Institute
| Whole Foods Market | WPX Energy | Debra R. Zinke

Apprentice

Marjorie Atwood | Chase Breidenthal | Cyntergy AEC | Robert Fitzpartick
| John Greene | George Kaiser Family Foundation | Jeff and Marcy Gettys
Charitable Trust | Hall Estill Attorneys at Law |
Kendall-Whittier Neighborhood Fund | Leadership Tulsa |
Sanjay D. Meshri Revocable Trust | Tulsa Community Foundation |
Tulsa Regional Chamber of Commerce | Carey C. Ward | T.D. Williamson |
William Young

Enthusiast

Ann Busch | Fab Foundation | FADCO | Garden Diva |
The Michael and Elizabeth Johnson Family Foundation | Deidra Kirtley |
Blake Matthews | Daniel Moran | Frank Mulhern | Matthew Norris |
Kevin O'Sullivan | OSU Medical Center Trust | William Paiva |
Winston Peraza | Scott Phillips | Nathan Pritchett | Anne Pollard-James |
Ellen Ralph | Lisa Regan | Science Lab Cookie Cutters |
Robert D. Strattan | James Vincent | Dana Wilkes | Williams Companies

In Kind

Cubic Inc. | Meridian Resources | QuickSharp Inc.

Accolades/Highlights

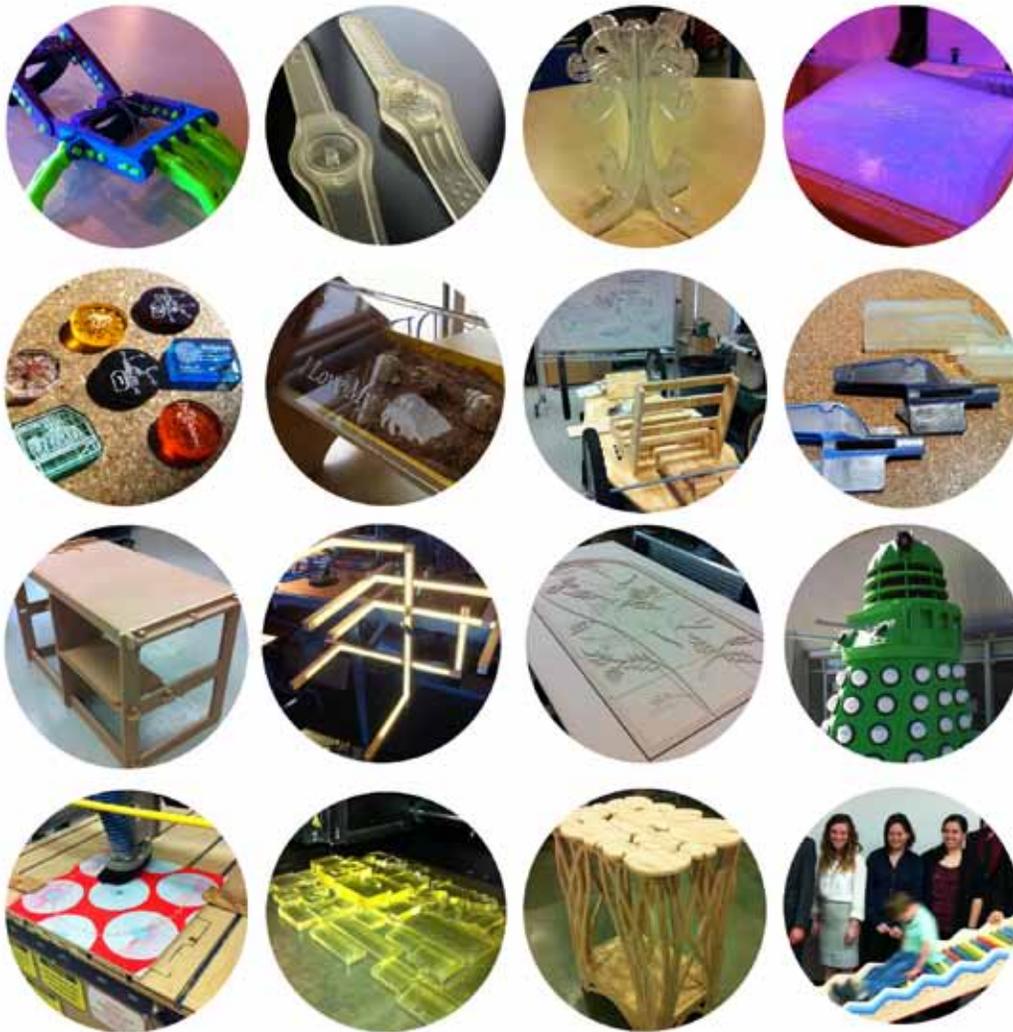
TYPros Boomtown Award, The Visionaries category – Fab Lab Tulsa

Leadership Tulsa Paragon Award – Frank Mulhern, Board Member for Fab Lab Tulsa

Tulsey Award, Service Provider of the Year – Nathan Pritchett, Executive Director of Fab Lab Tulsa

1st Place, TCC Startup Cup Competition – CleanNG, Fab Lab Tulsa member

2nd Place, TCC Startup Cup Competition – Two Guys Bowties, Fab Lab Tulsa member



Thank you for your donation of your time and talent: Creative Director; Jan Blanchard; Blanchard Group, Photography; Scott Miller; Miller Photography, Copywriting; Alf Laukoter, Printing; TPSi, Financials; Kathleen Cordell



We believe in igniting the mind.

We believe in challenging innovation and invention.

We believe in helping others be prepared for a bigger future.



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