



The Tribune

1st Quarter 2021

Profit, Purpose AND Family



TYREX[®]
GROUP, LTD.

1st Certified Ethics Alliance Member

As RecognizeGood, the TyRex Family's signature nonprofit, launched a new certification process for businesses that value ethical decision-making, we wanted to set the example by becoming the first-ever certified Ethics in Business Alliance member. Led by Scholley Bubenik, the Ethics in Business Alliance is a network of businesses who believe doing the right thing is good business, and encourages organizations who are proud of their shared values to join together and keep ethics top of mind through regular resources and ethics-focused events.

To become a certified member of the Ethics in Business Alliance, a cohort from an organization completes a series of three training workshops:

- "Building a Strong Foundation for an Ethically-Based Culture"
- "Creating an Ethical Leadership Mindset That Sticks"
- "Developing an Ethical Roadmap for Your Organization"

Weaving in the principles of the Ethics in Business Alliance with our own six Diamond Disciplines, TyRex leadership examined the cascading "levels" of an ethical organization - from compliance to fairness, from trust to a full-on ethical mindset shared by all. We shared actionable ideas to maintain and grow the respect, trust and mutual appreciation we strive to have with not only our business family, but our partners. Finally, a roadmap to continued excellence in business ethics was created from three distinct perspectives - that of the leadership, that of the entire workplace as a whole, and that of employees at every level.

As RecognizeGood continues to grow this much-needed program in the Central Texas business community, TyRex is proud to "practice what we preach" and continually strive to set the standard for business ethics and how people are treated. We know that many more businesses will follow suit, but for now we are extremely honored to be first!

Coach's Corner

John Bosch, Jr.

Coach, Mentor and TyRex's Visionary



In this issue of the Tribune, we recognize a variety of key components that are primary to the TyRex Technology Family culture. Allow me to add the underlying texture to these various cultural identities. For example, the article "Powering the Impossible with DLP" illuminates the very cutting edge of DLI's technical knowledge and capabilities in DLP. In that same light, ARL's technical capability is shown in "ARL Brings Antarctica to Austin." The TekRex case study "Fiber Optic Cassette" describes how two (2) TyRex entities working together can tackle some very complex fiber optic engineering requests!

Certainly TyRex's partnership on business ethics with RecognizeGood underscores the various TyRex entities and associates committed to doing business the right way - even in these challenging times of a pandemic. Some have suggested that the commitment to ethical principles and practices has greatly contributed to TyRex completing its 26th year in business - covering three (3) economic recessions.

Speaking of continually building (and sometimes expanding) the business foundation, there is no greater measure of the cultural foundation of a business' depth than the involvement from both individuals and collective leadership TEAMS in its business family and community. How creative can you be during the COVID-19 crisis? Check out RecognizeGood's "Say Thanks, Austin" celebration, traveling all around Central Texas in an electronic billboard parade. How cool is it to watch a mobile billboard truck recording nine (9) Austin volunteer Legends? Especially after canceling the event twice due to the winter storm and the pandemic. It illustrates how you accept

the challenge while keeping your mind from locking up, concentrating on an alternate path to success. Great work!

Then there is family - take a look at the anniversaries. The number of long-term TyRex Family members - is always impressive, and it so illustrates the true spirit of business family: caring and belonging. So thanks to every single one of the members of our business family, whether you are contributing one day or for an entire business career, for continually making TyRex **Special** by Design®.

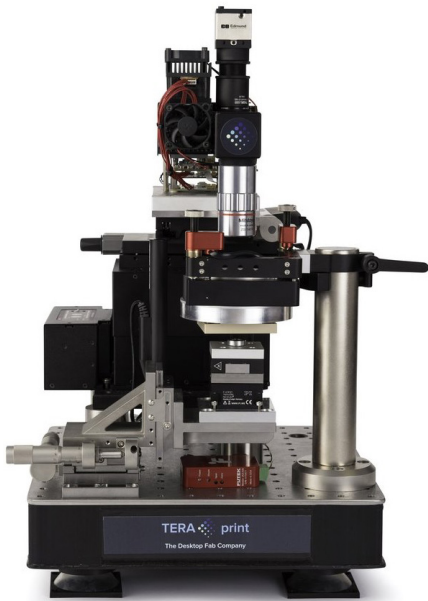


KC Bordonaro recently hit 15 years with TyRex!



John showed off his "St. Pat-T-Rex" socks for St. Paddy's Day.

Powering the Impossible with DLP



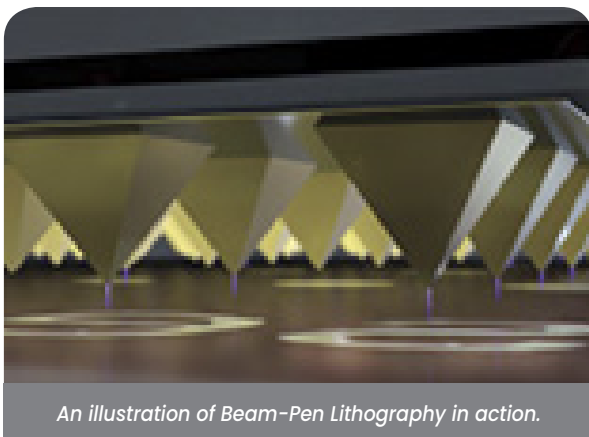
Beam Pen Lithography (BPL) is a recently invented lithography technique that is commonly used to fabricate nanoscale components in applications such as electronics, biology, medicine, and chemical synthesis. Determined to remove the limitations within the current BPL technology, our partners at **TERA-print** discovered that DLI's DLP technology would open up new possibilities in applications such as materials design and bioengineering.

In BPL, an elastomeric tip array is coated with a thin layer of metallic gold and then nanoscopic apertures are physically or chemically generated at the apex of the tips. Rather than directly printing inks onto a surface with the pen tips like in PPL, BPL directs light through those apertures to expose the underlying photosensitive materials. Importantly, the resolution of this technique is tied to the size of the apertures – the smaller the apertures the finer the structures they can create – and for small enough apertures,

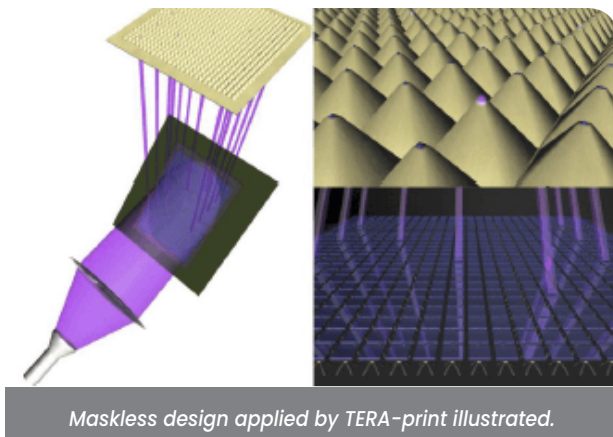
this technique ultimately creates nanoscale features with dimensions below the diffraction limit of the light source. Although the use of light in tandem with a BPL array allows for users to perform a multitude of highly localized photoreactions in parallel, this strategy is unable to yield arbitrary patterns over large areas necessary for many photochemical applications because each tip in the array writes the same pattern.

By combining BPL and DLI's DLP technology into one tool, users can now control light at a sub-wavelength resolution as low as 250nm while keeping a 90-95% density distribution across the whole patterning area. Alongside superior uniformity, the maskless design of the TERA-Fab™ E series platform allows users to easily change patterns on the fly while maintaining high resolution throughout – made possible by the vivid image quality of the DMD.

DLP technology is meant to simplify the complexities of advanced light control and that is yet another strength behind the E series. Harnessing all of its capabilities would normally seem complex or even overwhelming, but TERA-print intended for this system to be straightforward and enable users to start patterning after just a few hours of training. For the first time ever, the discovery, prototyping, and production of nanodevices can be done on a single desktop.

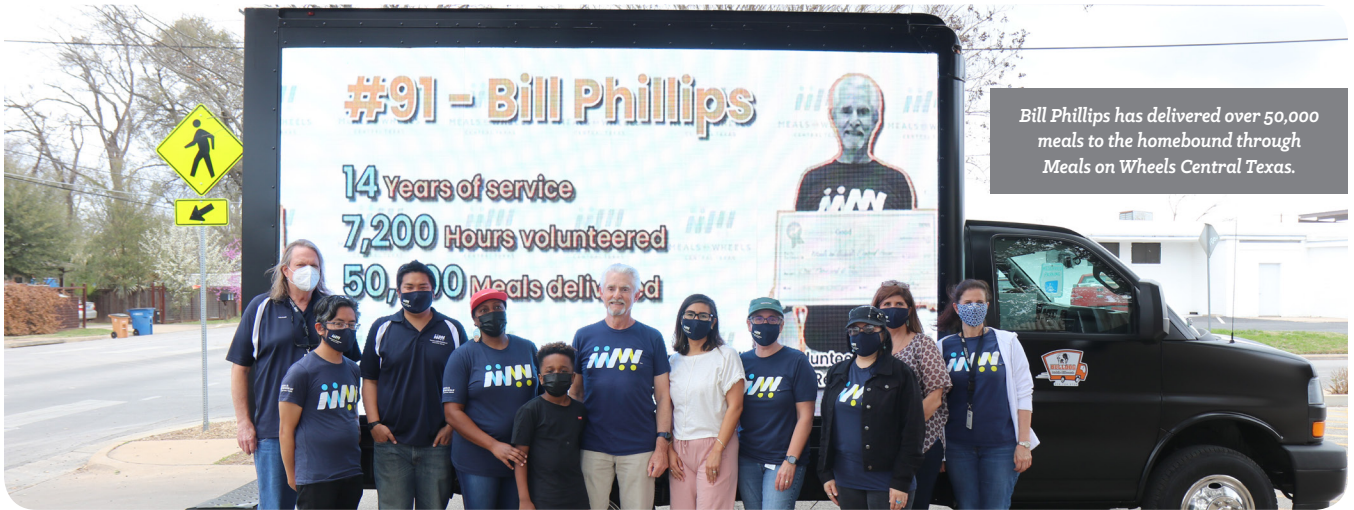


An illustration of Beam-Pen Lithography in action.



Maskless design applied by TERA-print illustrated.

Mobile Gratitude: Say Thanks, Austin Campaign



Bill Phillips has delivered over 50,000 meals to the homebound through Meals on Wheels Central Texas.

The Say Thanks, Austin campaign is RecognizeGood's way of kicking off each year with a huge outpouring of gratitude. Each Legend honoree from the previous calendar year competes for Thank You votes across the month of January, via text, email, social media, web and even paper ballot. Rewarding this daily dedication to gratitude is the closing ceremony, where results are announced and close to \$20,000 in donations are awarded.

Due to the pandemic, the normal City Hall affair needed to pivot, and so RecognizeGood took to the streets with a mobile LED billboard truck. Visiting each Legend and their support team on their turf proved to be incredibly meaningful - and incredibly memorable! This year more than 140,000 Thank You votes were submitted during the campaign.



Monica von Waaden feeds almost 2,000 students - every week.



Mace Massingill has donated over 1 MILLION meals.



Mothers' Milk Bank Austin staff celebrate Ann McGinley.



Deidre Gott has served the homeless for over 11 years.

ARL Brings Antarctica to Austin

The images conjured up when you think of Austin, Texas, seldom include penguins and glaciers, but that's precisely what's on the mind of engineer Ronald Ross of Austin-based **Polar66**.

Ross creates complex weather stations that have dotted the moonscapes of Antarctica for well over a decade now. These stations not only measure the weather and collect other scientific data, but also come equipped with cameras that monitor everything from glacier movement to penguin colonies. Given the time and expense involved in getting the stations set up in Antarctica, reliability is key.

"The equipment needs to work 24/7/365 [...] many of the scientists want to collect a continuous set of data. What that means is whenever a problem or exception is encountered the system needs to be able to recover itself without anyone being around because once we deploy we may leave within a day or so and may not return ever," says Ross.

ARL has been proud to support Polar66's work, namely through supplementing the company's temperature testing capabilities with our own set of environmental chambers. As is the case with many electronics, individual parts may be rated to withstand the rigors of Antarctic environments, but it's important to test various subassemblies to make sure the system as a whole will function properly when it matters most.



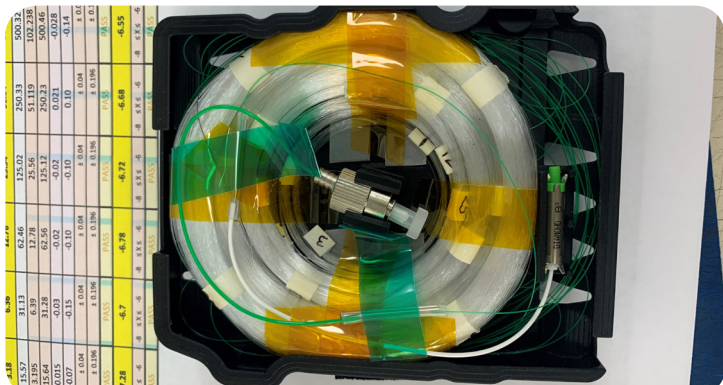
Polar66 team sets up Antarctic weather station tested at ARL

TekRex Case Study: Fiber Optic Cassette

A fiber optics company needed custom lengths of fiber spools for an optical splicing application. The only issue? They needed over 400 meters of this glass spooled into multiples and into a form factor previously unheard of. For reference, normally this amount of fiber fits into an enclosure the size of sheet of paper - our client needed it at about a quarter that size.

To fit that much fiber into such a tight form factor, TekRex had to start at the tooling phase. We custom designed mandrels that could not only coil the glass to the specified radius, but also nest the coils of glass inside one another to save space. We then designed and 3D printed the enclosure that could fit the nested glass using geometries impossible through traditional machined means.

After an abbreviated prototyping process due to 3D printing, the client had a fiber package in a form factor that was once unthinkable. Thanks to TekRex's tooling expertise, the client can make more of these unique fiber packages on demand.



Custom fiber enclosure was another TekRex first-ever result.

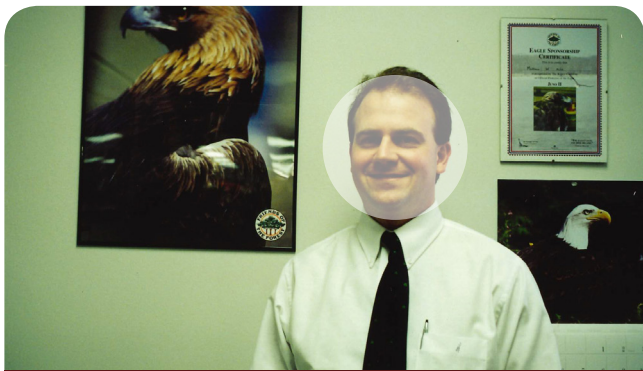
Happy Birthday, TyRex!



John Bosch, Jr. circa 1997



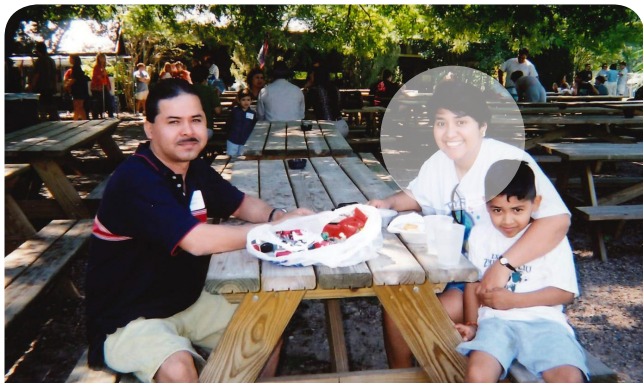
Andrew Cooper circa 1997



Matt Ache circa 1998



Kevin Alwell circa 2001



Maria Jaimez circa 2001



Jeff Walton circa 2001



Rich Burgess circa 2001



John Sansoucy circa 2001

Employee Milestones

Birthdays

JANUARY

2..... Rich Burgess (IRX)
4..... Daniel Hogberg (MGD)
10..... Rebeca Mendoza (ARC)
14..... KC Bordonaro (SRX / IRX)
15..... Satwinder Kahlon (SD)
19..... Jessica Paramo (ARC)
20..... Elvira Sierra (MGD)
22..... Alicia Zarate (MGD)
25..... Joel Coffman (TRX)
25..... Bertha Ruvalcaba (IRX)
26..... Martin Johnson (TRX)
26..... Larry Krupicka (SRX / IRX)

FEBRUARY

6..... Sonia Roberts (SRX)
15..... Maria Martinez (ARC)
17..... Laura Perez (IRX)
18..... Daisy Valadez (MGD)
21..... Araceli Martinez (IRX)
21..... Noemi Sanchez (MGD)
24..... Jeff Walton (SRX)
28..... Martha Castillo Barron (IRX)

MARCH

4..... Mari Munoz (ARC)
5..... Ronneece Hall (IRX)
9..... Fanny Ramos Reyes (IRX)
21..... Liliana Silva (IRX)
22..... Octaviana Oliveros (SRX / ARC)
26..... Dan Chambers (SRX / ARL)

Happy Birthday!

Anniversaries

JANUARY

2 Years Wade Bateman (IRX)
3 Years John Craghead (SRX)
3 Years Jeannie Phipps (TRX)
3 Years Ted Neil (TRX)
4 Years Karol Sue Smith (ARL)
4 Years Suleica Jimenes (IRX)
4 Years Joel Solis (MGD)
15 Years..... KC Bordonaro (SRX / IRX)
21 Years..... John Sansoucy (IRX)
21 Years..... Rich Burgess (IRX)
26 Years Andrew Cooper (TRX)
26 Years John Bosch, Jr. (TRX)

FEBRUARY

2 Years Jackie Wang (IRX)
3 Years Yi Zhang (SRX)
3 Years Mike Hammock (MGD)
4 Years Henry Shepard (TLF)
8 Years Larry Krupicka (SRX / IRX)
10 Years..... Yolanda Mendendez (ARC)
15 Years..... Rick Jennings (SRX)
16 Years..... Sonia Roberts (SRX)

MARCH

6 Years Danny Ross (IRX)
6 Years Amy Bosch (TRI)
7 Years Martin Johnson (TRX)
14 Years..... Denny Hean (IRX)
15 Years..... Jorge Alejo (SRX)
21 Years..... Phuong Nguyen (SRX)

Happy Anniversary!

Employee of the Month

JANUARY Jorge Alejo (SRX)

FEBRUARY Lee Tate (DLi)

MARCH Amanda Paternoster (IRX)

Congratulations!



TYREX[®]

GROUP, LTD.

Family of Technology Companies



Arctodos

Arctos



Andrewsarchus

Austin
Reliability Labs



Diplodocus

Digital Light
Innovations



Pteranodon

iRex



Otodus
megalodon

Megladon



Hoplophoneus
(cat)

Saber Data



Smilodon
(tiger)

SabeRex



Troodon

TekRex

Nonprofit



RecognizeGood[®]

Illuminating GOOD
in Our Community

Associated Entities



Crypto
Prospectors



RF
Scientific



Right Stuff
Marketplace



tri/REX



TyRex
Learning
Foundation

Special By Design[®]

BENEFITS CONTACT INFORMATION FOR TYREX FAMILY MEMBERS

CoAdvantage

Benefits Information, View Paychecks, Change of Address, W2 Reprints
& Employee Discounts can be accessed through the employee portal at:

CoAd360.com

CoAdvantage Employee Service Center (available 24/7)

(800) 868-1016 • data@coadvantage.com

Aetna Medical

(800) 704-7287 • aetna.com

MetLife Dental

(800) 942-0854 • metlife.com

MetLife Vision

(855) 638-3931 • metlife.com

Mass Mutual 401K Retirement Plan

Enrollment, Rollovers & Statements
(800) 743-5274 • retiresmart.com