National Science Foundation in

EUREKA PARK

2016 International CES

Small Business Innovation Research Companies
Sands, Hall G

The latest creative new approaches to virtual reality, energy-efficient technologies, the Internet of Things, robotics and more will be in one place in January.

That place is Eureka Park, an area dedicated to up-and-coming technology born from fundamental science and engineering innovation, at the world's largest consumer electronics event, the 2016 International CES®.

During January 6-9, 2016, in Las Vegas, small businesses, startups and spinoffs with pre-market technology will demo their prototypes and proofs-of-concept for passers-by looking for fresh ideas.

The National Science Foundation (NSF) co-founded Eureka Park in 2012 to help emerging technology ready for commercialization gain marketplace exposure by giving NSF grantees access to potential partners and investors at the premier consumer electronics tradeshow. The technologies have more than simply a cool factor – they have the potential to help drive the U.S. economy, enhance national security and advance American global leadership.

Learn more about the NSF **Small Business Innovation Research and Small Business Technology Transfer** programs:
Eureka Park booth # 80146
Visit NSF.gov/eng/iip/sbir/

NSF Media Contact:
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sabates@nsf.gov

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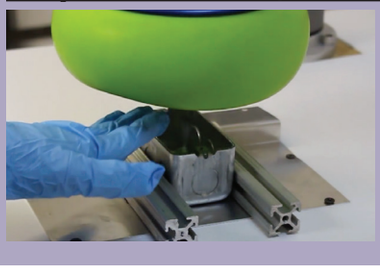
SBIR@nsf.gov

ASSISTIVE TECHNOLOGIES & ROBOTICS

Empire Robotics, Inc.



Developing an innovative robotic gripping technology that leverages the unique jamming behavior of granular materials to enable a device that can passively conform to objects of varying shape and then vacuum harden to grip them rigidly.

William Culley | Bill@empirerobotics.com
www.empirerobotics.com | @empirerobotics | # 80252

Polymer Braille, Inc.

Developing a mechanical Braille cell device that uses polymer-based single dot actuators to enable visually handicapped people to access digital information in a robust format comparable to a mobile tablet computer.

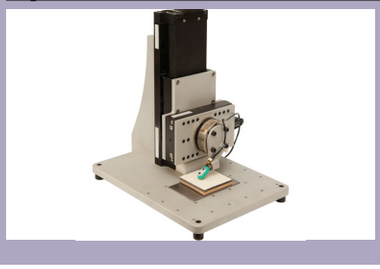
Wallace Pitts | wspitts2@ncsu.edu
www.polymerbraille.com | # 80151

Reach Bionics

Developed a hands-free controller, which can be integrated directly into any virtual reality headset, and allows users to control their virtual world with unique facial expressions of their choosing.

Sandy Heck | sheck@reachbionics.com
www.reachbionics.com | # 80251

SynTouch



Developing a new standard to quantify touch for industries such as robotics that rely on qualitative data from expert sensory panels, the tactile equivalent of professional wine tasters.

Jeremy Fishel | jeremy.fishel@syntouchllc.com
www.syntouchllc.com | # 80351

VisiSonics Corporation

Developing highly realistic and computationally efficient software for sound synthesis, for applications that include virtual reality, gaming and prostheses for the blind.

Ramani Duraiswami | ramani.d@visisonics.com
www.visisonics.com | @VisiSonics | # 80247

AUDIO & ACOUSTICS

Asius Technologies

Created a chip-like device that acts as a secondary eardrum to absorb the harmful pneumatic pressures produced by earbuds and provides a safer listening experience.

Steve Lebischak | steve.lebischak@asiustechnologies.com
www.asiustechnologies.com | @AsiusTech | # 80349

TAG Optics, Inc.

Develops and manufactures the world's fastest focusing lens for applications from robotic and machine vision to metrology by using a proprietary technology that uses sound to shape light.

Christian Thériault | ctheriault@tagoptics.com
www.tagoptics.com | # 80248

BIOMEDICAL

AventuSoft

Developing a monitoring device based on sound perception, biological signals and signal processing techniques for the early detection of heart disease.

Kaustubh Kale | kaustubh@aventusoft.com
www.aventusoft.com | # 80147

PuraCath Medical

Created a product that offers a novel disinfection process for catheter connections that helps reduce infections and enhances patients' quality of life.

Julia Rasooly | julia@puracath.com
www.puracath.com | # 80150

Omnity

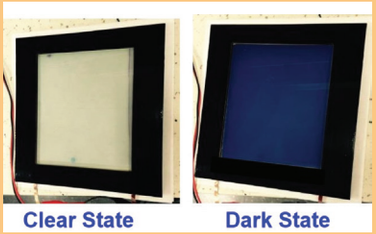
OMNITY

Creating a search and discovery tool that helps knowledge workers find patterns of interconnectedness within and between fields to reveal unique insights that drive innovation. For example, if a pharmaceutical researcher is looking to develop or repurpose a drug, Omnity can reveal otherwise hidden connections between related work to uncover unexpectedly relevant technological approaches.

Mark Lindsey | Mark.lindsey@cognito-tech.com
www.omnity.io | # 80346

ENERGY

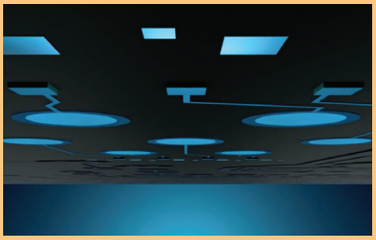
ARGIL, Inc.



Developing fast-switching electrochromic film to improve light and heat control in cars by replacing standard glass with dynamic glass. Will demonstrate prototypes of fast-switching flexible electrochromic film, a smart window with electrochromic film laminated between glass, and adjustable tint eyewear such as goggles and sunglasses.

Damoder Reddy | damoder.reddy@argilinc.com
www.argilinc.com | # 80350

Chirp Microsystems, Inc.



Ultrasound 3-D sensing technology that combines ultralow power, small form-factor, and cost-effective sensors with intelligent firmware, providing a solution for the next-generation user interface for consumer electronics and IoT.

Michelle Kiang | info@chirpmicro.com
www.chirpmicro.com | # 80152

INTERNET OF THINGS & SENSORS

femtoScale

Helps asthmatics better understand and control their asthma with devices that measure and analyze air quality in real time.

Peter Neilson | peter.neilson@femtoscale.com
www.femtoscale.com | # 80148

NOA, Inc.

Developed a technology to visualize and query geospatial data, allowing users to retrieve and stream real-time, dynamic information from specific locations via any standard browser (in the cloud) and with mobile API, which is especially useful in disaster scenarios.

Jonathan Alexander | bizdev@terrafly.com
www.terrafly.com | # 80253

PFP Cybersecurity

Uses IoT monitors, machine learning and data analytics to detect tiny anomalies in power patterns to provide an early warning system for wireless networking equipment and smart grid infrastructure.

Carlos R. Aguayo Gonzalez | caguayog@pfpcyber.com
www.pfpcyber.com | @PFPCyber | # 80246

Stratio, Inc.

Uses innovative image sensors and hyperspectral imaging system to offer consumers easy access to materials identification, medical sensing and smart living applications. At CES 2016, Stratio will introduce LinkSquare, which connects to smartphones for food and drug analysis.

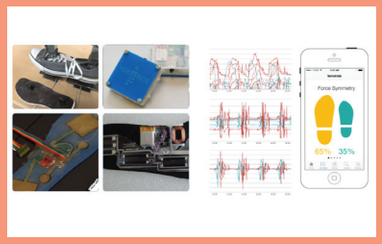
Leslie Grothaus | contact@stratiotechnology.com
www.stratiotechnology.com | # 80249

TRX Systems, Inc.

Developed a technology to visualize and query geospatial data, allowing users to retrieve and stream real-time, dynamic information from specific locations via any standard browser (in the cloud) and with mobile API, which is especially useful in disaster scenarios.

Jeff Kunst | kunstj@trxsystems.com
www.trxsystems.com | @TRX_Systems | # 80348

Veristride, Inc.

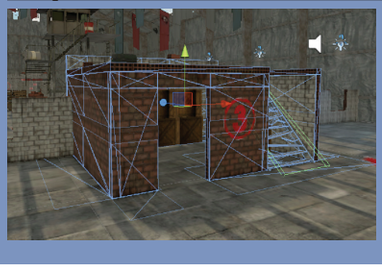


Uses biosensor insoles, an app and wireless connections to give users real-time information about their movement abilities, so they may modify their gait.

Stacy Bamberg | stacy@veristride.com
www.veristride.com | @veristride | # 80347

VIRTUAL REALITY & SIMULATIONS

Impulsonic, Inc.



Creating a cloud-based acoustic simulation service aimed at architects and acoustical consultants, so they can a better understand a building's acoustics before construction.

Anish Chandak | achandak@impulsonic.com
www.impulsonic.com | @impulsonic | # 80149