



# innovate. smaller.

Innovation is now smaller than ever. From next generation IoT to ground-breaking health solutions, micro-engineering is driving change around the world. Innovating tiny products that were once thought to be impossible requires ideas that go beyond the imagination. At Xidas, we're driven by our passion for innovation and empowered by our patented technology breakthroughs to create solutions for our customers that could not exist before. Xidas is making big changes by innovating smaller.



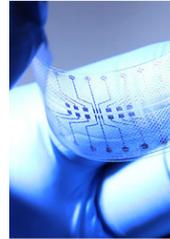
**Our Vision:** To change the world through micro-engineering.

XIDAS

# smaller is bigger than ever.

The need is big. Many industries today have a need for advanced, ultra-miniaturized products that currently don't exist. Our passion is to provide next generation micro-products that bring our customers' visions to life.

Xidas uses a new multi-patented miniaturization paradigm, called Amalga™, that combines manufacturing technologies, design methodologies, and diverse materials processing to produce micro-scale solutions for industrial, life-tech and IoT applications that were once impossible.



# our method for innovation.

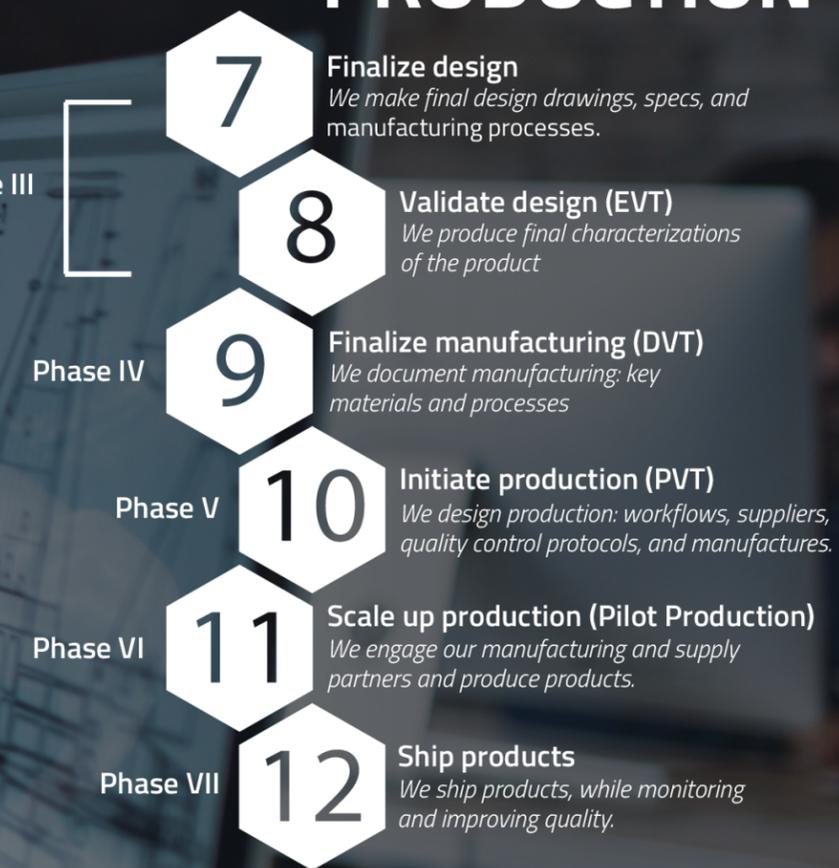
Micro-engineered products, from concept to production

Xidas wants to be your partner in developing next generation, advanced micro-devices and micro-systems, from concept to production.

## DESIGN



## PRODUCTION





# small focus, big expertise.

Xidas has a seasoned interdisciplinary team of scientists and engineers with skills in physics, materials science, advanced manufacturing, processing, electrical, mechanical, and biomedical engineering. This team has mastered Amalga™, the Xidas approach to miniaturization, and are uniquely capable of designing, developing, and manufacturing advanced micro-products for our customers.

"Xidas is a company that leads, innovates, nurtures, and inspires. We take pride in tackling the world's great challenges and delivering next generation solutions."  
– Mark Bachman, Ph.D, CTO

"At Xidas, we take on the most interesting and challenging projects - and then our team delivers! It's great to be part of a cross-disciplinary, high performing team like this one."  
– Phillip N. Duncan, Ph.D.



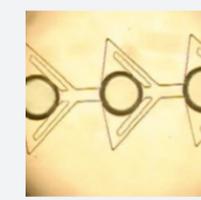
Life-tech

# we make life micro amazing.

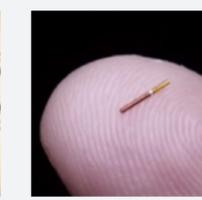
The possibilities are endless for your vision. Leveraging unique microfabrication processes, design methodologies, and biocompatible materials, the Xidas team develops innovative commercializable medical devices and life-science products. Our products enable tomorrow's medical implants, minimally invasive procedures, wearables, drug delivery, health infrastructure, cosmeceuticals, agriculture and livestock applications.

EXAMPLES OF  
TECHNOLOGIES  
AND PRODUCTS  
WE DELIVER

Nano-volumes



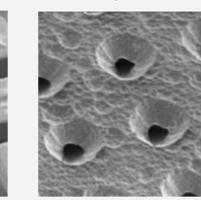
Implantable Sensors



Micro-Assays



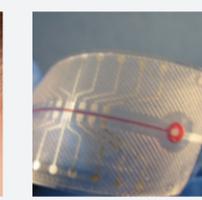
Fluidic Systems



Hearing Systems:



Drug Delivery



IoT

# the edge meets small and smart.

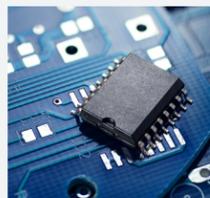
Xidas leverages its breakthrough patented technologies and multi-disciplinary expertise to design and produce highly integrated smart modules and sensors for deployment in a wide variety of IoT scenarios. Xidas edge solutions combine intelligence, zero-power (e.g. energy harvesting), sensor fusion and integration.

EXAMPLES OF  
TECHNOLOGIES  
AND PRODUCTS  
WE DELIVER

Micro-energy



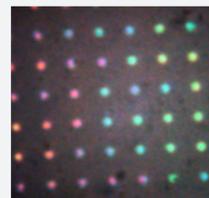
Edge Modules



Wireless Systems



Zero-power sensors



Edge Intelligence



Integration





Industrial

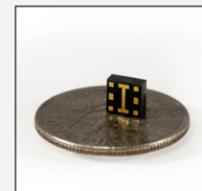
# delivering small in a big industry.

Xidas provides industry-first products and technologies to our industrial customers, leveraging a technology toolbox that includes precision manufacturing methods, micro-sensors, micro-actuators, 3D micro-structures, and materials.

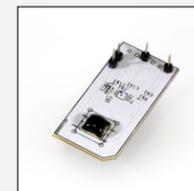
Our customer's applications include robotics, telecommunications, manufacturing, aerospace and defense, which need to cost-effectively miniaturize precision industrial components.

EXAMPLES OF  
TECHNOLOGIES  
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WE DELIVER

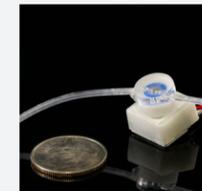
Micro-Relays



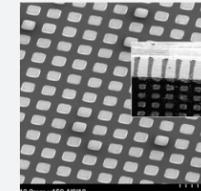
Smart Micro-Sensors



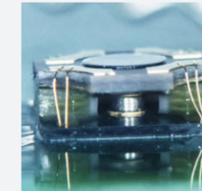
Fluidic Sensors



Interposers



Micro-Actuators



Case Study:

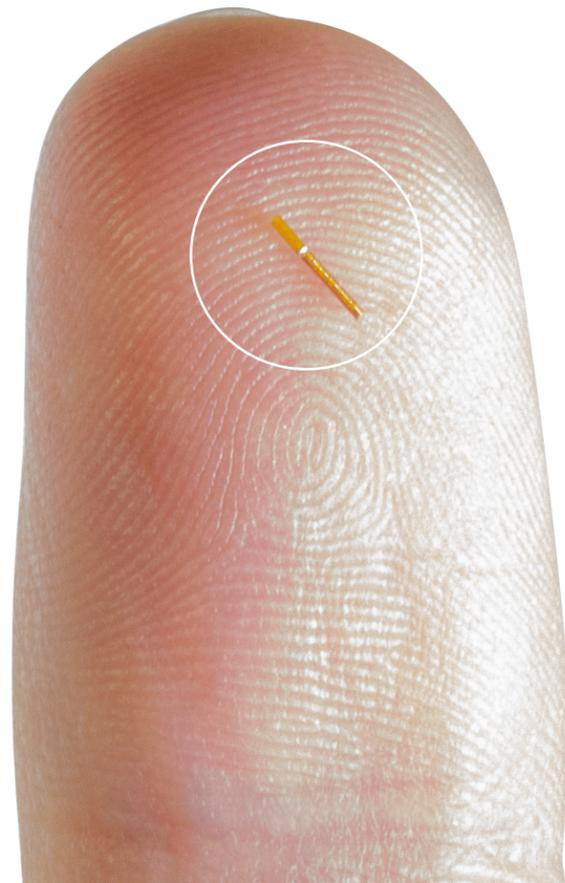
# life-tech solutions.

Implantable, in-body sensors are extremely difficult and expensive to produce because they require a minuscule size, biocompatible material composition, and no batteries/electronics.

With our highly-experienced team of biomedical, materials, electrical and mechanical engineers (many with PhD's), and with 15 years of research in integrating a wide variety of materials (including polymers), Xidas possesses a unique capability to build the world's smallest zero-power, implantable sensors and devices.

"THE EYELASH" is an in-body, zero-power wireless sensor (no electronics on board) with a footprint smaller than a human eyelash designed for Glaucoma monitoring and other applications.

*An Industry First.*





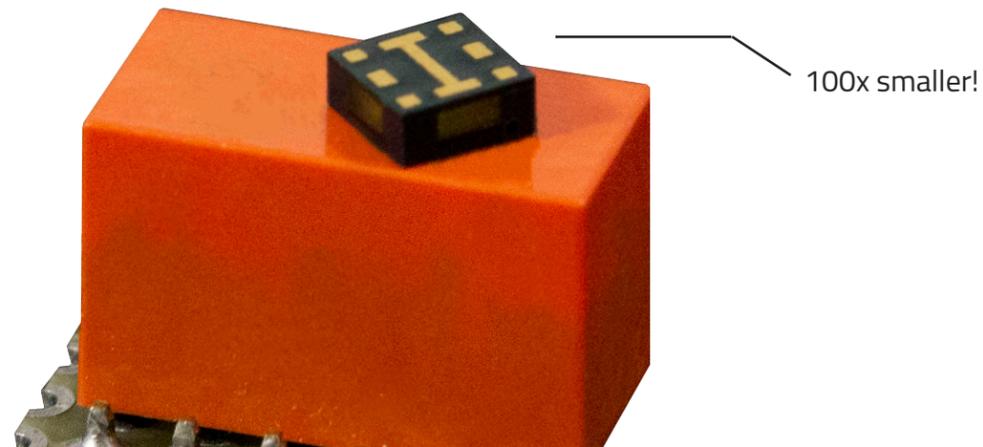
Case Study:

# industrial solutions.

SWAPc (reducing size, weight, power, and cost of components) continues to be a major priority for a variety of industrial markets such as Aerospace and Test & Measurement. Conventional manufacturing approaches (e.g. MEMs semiconductor thin-film) have not been able to miniaturize the majority of components needed by industry due to technical and economic limitations.

Our Amalga™ miniaturization paradigm allows us to integrate many different materials (i.e. metals, magnets, coils) in a device and to design and batch manufacture fully three-dimensional, rugged, and robust industrial products.

Xidas's micro-relays are designed with large strokes, high-current handling, and true magnetic latching. Miniaturization of the mechanical elements required for electromagnetic operation enables an unparalleled micro-relay product. **An Industry first!**



Case Study:

# IoT solutions.

A major component of IoT applications are wireless sensors, and today's solutions require batteries, which last only a few years. In applications like machine condition monitoring, the costs associated of maintaining thousands of batteries does not justify adopting a modern IoT solution such as predictive maintenance.

Leveraging our partnership with the National Science Foundations (NSF), Xidas produces self-charging batteries through ambient energy to perpetually power wireless sensors. *An Industry First!*





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