

A Proven Company Creator

TandemLaunch creates, incubates and accelerates early-stage technology start-ups based on inventions from the world's top universities in the areas of artificial intelligence, computer vision, IoT, audio and advanced sensors. We scout thousands of technologies every year from a network that spans over 600 universities worldwide. Having successfully executed over 50 technology transfer agreements, TandemLaunch is a spinout foundry with an international scope, producing high-impact, IP-focused companies with an unprecedented rate of success.

Building Great Companies

TandemLaunch identifies commercially attractive academic innovations then recruits talented and visionary technical and business entrepreneurs (Entrepreneurs-in-Residence) to work closely with academic inventors to create compelling proof-of-concept prototypes, comprehensive intellectual property portfolios and scalable business models. The resulting portfolio companies are funded by TandemLaunch with up to \$3M in financing and led by experienced executives for growth into profitable businesses.

35+
Ventures Created

1000+ Jobs Created

\$675M+
Portfolio Value

85+External Investors



Technology

An international technology scouting infrastructure sourcing multidisciplinary inventions from over 600+ universities.



Investment

We provide our ventures with investment capital, operational infrastructure and active management support.



Talent

International recruitment of top founders with over 65% having a technical PhD.



Impact

Our portfolio companies strive to have a significant impact on rising sustainability concerns.

Engagement Opportunity

Members of the TandemLaunch Partner Program are given multiple contact points with our portfolio, receive the earliest possible notice on portfolio updates and have access to privileged investment opportunities.

Members also receive full access to our international technology scouting infrastructure spanning 600 universities for recruitment and technology scouting.







Materials







Devices nication

Company

Description

2023



<u>Procero</u> is an optimization software that seamlessly accelerates microprocessor speeds (both CPUs and GPUs) by up to 10X through a highly efficient mathematical approach, outperforming conventional methods. This results in a minimum 2X increase in FPS for gamers while drastically reducing computing costs in AI, VR, graphics rendering, vision, speech, and robotics. The software is currently supported on Windows and aims to be platform agnostic



view website



<u>Viridox</u> revolutionizes sanitization practices with an effective, low-power, and safe cold atmospheric plasma tool. Their tool generates non-toxic and ecofriendly reactive species using air and misted water, resulting in an aerosol with exceptional decontamination and fertilizing properties. They aim to develop a countertop appliance for decontaminating fresh produce, extending its freshness. Their long-term goal is to introduce Viridox's mister into major grocery stores, upgrading existing produce misters.







view website

2022



echosonic has developed a hardware and software solution that allows MEMS microphones to act as sensors that accurately capture the meaning of sound and voices while consuming ultra-low power. These sensors are suitable for various applications such as predictive maintenance, smart building, conservation, security and home security fields, soft biometric identification, IoT, and mobile industries.



view website



Agapyo is developing the next generation of bioplastic that is derived from an abundant resource - wood waste (even recycled cardboard) - to overcome the pressing plastic challenge that is plaguing our planet.



view website

INLAN

INLAN is developing a novel RFID tag that enables passive RFID tags to achieve micrometer accuracy localization and orientation independent reading of high volumes of tags for industry 4.0, tracking and supply logistics applications.



view website













Materials

Company

Description

2022



ChillSkyn addresses the global need for efficient cooling of buildings and vehicles which is one of the major challenges brought by climate change. They are developing a nano/microporous passive daytime radiative cooling polymer coating that effectively reflects the sun's radiation while strongly emitting in the atmosphere's transparent infrared window. This allows electricity-free reduction of building temperatures by up to 6 °C below ambient.





view website

2021



Ohmic provides physiological and activity based information through headphones. The company achieves biometric sensing through technology that is added as a dongle for wired headphones or integrated into a wireless earbud design. Their sensing technology measures heart rate, recognizes tap/gestures from users and identifies users with accuracy.



view website

2020

WAVESHAPER

Waveshaper AI is an end-to-end signal processing platform and a real-time inference engine that transforms streams of raw audio in real-time, in stereo, and at a high rate of quality. By using AI to learn custom audio processing systems, results can be deployed codelessly yet remaining fast enough to be used for real-time studio production.



view website

I ATYS

LATYS is creating the world's first non-reciprocal wireless relay system that breaks the current rules of antenna design. LATYS's ultra-compact wireless relays are built on reconfigurable metamaterials and are inherently immune to interference, noise, and many other problems that cause performance issues in wireless networks.









view website

2019



AAVAA is building a technology that lets you choose what you hear by focusing on the sounds of interest. In addition to sound source separation and speech enhancement features, their solution offers attention decoding to allow handsfree device command and control through head movements, eye motion, blink detection, and brain attention.

















Materials

Devices

2019

Company

Description



Depix automates the professional photography and video editing pipeline, allowing fast and photo-realistic object insertion into images using physically based rendering and artificial intelligence.





view website

2018



Shearwater Aerospace is revolutionizing the drone industry with Smart Flight, an Al-powered software that functions as the "iOS of autonomous drones". By replacing human pilots with artificial intelligence, Smart Flight enables enhanced onboard decision-making, facilitates collaboration between drones, and significantly reduces the risk of human error. This scalable technology can be utilized with any type of drone, allowing businesses to expand the number, length, and range of missions while reducing operating costs and ensuring strict regulatory compliance and safety standards.





view website

2017



Omniply's lift-off technology is revolutionizing the manufacturing process for thin film semiconductors and flexible electronics. Their solution offers a thin film release method that solves the most challenging process step for foldable & conformable displays, thin ICs, and flexible sensors. Their technology drastically improves profit margins for display panel makers and profoundly impacts the flexible electronics industry.





view website



Deeplite provides an Al-driven optimizer to make deep neural networks faster, smaller, and energy-efficient from cloud to edge computing. Pilot projects have shown improvements of 10-40x in processing speed and model size.



view website



Edgehog has developed the world's best anti-reflection technology: a durable, hydrophobic, and invisible glass without adding foreign materials to the glass surface. Initially, the company focused on using their technology to boost solar panel energy output by up to 12% annually. Now, they are expanding their technology to camera lenses and covers. Edgehog's technology solves the longstanding glare and flare issue that obstructs camera vision in all light conditions. The advanced technology enables self-driving cars and drones to navigate safely day and night, regardless of weather conditions, thereby improving safety for drivers, passengers, and pedestrians.











Materials



Devices



Company

Computer Advanced Hardware Commu- Sustain-

2016



Description

Soundskrit is leveraging biomimetic microphone design to improve audio capture in noisy environments by using a directionally-sensitive microphone, eliminating the need for microphone arrays. Soundskrit closed a Series A round led by AAC Technologies, one of the world's largest acoustic component suppliers.





view website



Bornio offers a comprehensive framework for anonymizing and mining sensitive data enabling organizations to comply with regulations with minimal data quality degradation. Bornio has integrated all essential services for sensitive Data Mapping, Secure Data Access, Encrypted Caching, Policy Enforcement and Data De-identification algorithms.



view website



<u>HaiLa</u> is an ultra low power RF communication company, currently developing an adaptation of its solution for Wi-Fi IoT devices. HaiLa's technology is redesigning the way data is transmitted by using existing infrastructure as carrier signals, instead of creating a signal at the wireless device. HaiLa uses passive backscattering techniques to ride ambient signals which drastically reduces power consumption by an order of magnitude and enables the equivalent battery life extension or enables energy harvesting as a power source.







view website

2015

CONTXTFUL

Contxtful created a 1st party-data attention layer leveraged in the AdTech ecosystem. They are using machine learning and AI to understand the context and environment of a customer's device as they are using it, improving audience targeting without compromising privacy. Their Receptivity metric for advertising can assess the level of attention of users in real-time, allowing publishers and agencies to target only receptive users for improved campaign engagement and ROI.



view website



Ora, the leading manufacturer of graphene oxide membranes, has leveraged graphene nanotechnology to develop high-fidelity, energy-efficient loudspeakers for mobile, home theatre, and personal audio devices. Their groundbreaking technology has already exceeded expectations, raising 5x their crowdfunding goal and attracting interest from multiple OEMs. Ora's team of expert scientists, which includes a Nobel Prize laureate, is now exploring the potential of GrapheneQ for sustainable applications beyond audio. Their primary focus is on de-carbonizing industrial processes by utilizing GrapheneQ as a filtration membrane in situations where conventional materials are ineffective.



















Computer Advanced Hardware Materials

Devices

Company

Description

2015



C2RO™ is a leading global provider of GDPR-Compliant Al-SaaS Video Analysis of the human behaviour in the physical space. C2RO ENTERA™ provides comprehensive, accurate, and 100% faceless shopper journey insights, detailed socio-demographic breakdowns, and full-conversion funnel analysis, while respecting the privacy rights of individuals. It enables data-driven decision-making and improves the quality of service, customer experience, and safety by detecting inefficiencies and bottlenecks that impact the ROI.





view website

2014



AIRY3D transforms CMOS sensors to produce inherently aligned 2D image and 3D depth data, enabling machine vision solutions to have a much richer understanding of their environment. Intel Capital and Robert Bosch Venture Capital have participated in funding rounds.



view website



Aerial Technologies, established in 2015, is a pioneer in Wi-Fi motion detection technology. Their Software as a Service (SaaS) enabled platform leverages existing Wi-Fi signals to detect motion and recognize human activity without the need for cameras, sensors or wearables. Aerial's patented technology analyzes distortions in Wi-Fi signals and uses Machine Learning (ML) and Artificial Intelligence (AI) to infer human activities and enable customers and partners to build consumer and enterprise applications. Aerial Technologies' team of experts is pioneering motion analytics for the technology community.



view website



Fluent.ai offers personalized intent recognition independent of language and accent for command and control, from smart homes to smart cars, by learning from each user's speech, context, and behaviour. Fluent.ai was named as one of five AI innovators by the International Data Corporation (IDC). Fluent ai has partnered with BSH, Europe's leading manufacturer of connected home appliances, to bring voice automation to its factories.



view website



Noze (formerly known as Stratuscent) is the global leader in digital scent detection. Combining groundbreaking sensors built on NASA-patented innovations with machine perception, they've created the world's first digital nose that works in reallife environments with incredible accuracy.





















Computer Advanced Hardware Commu- Sustain-Devices

nication

Company

Description



IRYStec builds ambient, intelligent, perceptual display algorithms that are customizable for every individual, resulting in increased visibility for infotainment displays and decreased power consumption for mobile. Irystec was acquired by Faurecia Electronics in April 2020 and now operates as a display tech center for Faurecia in Montreal.



Acquired by Faurecia

view website

wrneh

wrnch provides an AI engine that makes it easy to capture human motion in videos recorded by any camera, estimate human pose and motion, reconstruct human shape digitally as 3D characters, and deliver engaging user experiences with real-time, human interaction, wrnch was acquired by Hinge Health after raising external funds from international investors including Mark Cuban and Nikon Corporation.





Acquired by Hinge Health

view website



Sportlogiq employs a proprietary computer vision system to offer advanced sports analytics using existing single-camera game footage. CB Insights named Sportlogiq in the prestigious AI 100, a selection of promising companies working on ground-breaking AI technologies. Sportlogiq has raised external financing from key investors in the sports sector including Mark Cuban, and recently announced a partnership with the NHL Network to provide them with a full slate of media content.



view website

2012



Algolux provides a suite of products for the performance enhancement of cameras and vision systems resulting in dramatic improvements for computer vision applications. In 2023, Algolux was acquired by Torc Robotics, a subsidiary of Daimler Truck AG, for its award-winning intellectual property and expertise in the areas of computer vision and machine learning.





view website



LANDR is an audio post-production cloud service that performs the work of sound engineers instantly for the world's music and video creators. LANDR has mastered over 6 million tracks, is a three-time SXSW V2V winner, Canadian Music Week Technovation award winner, and was named Anges Québec Business of the Year and one of Canadian Innovation Exchange's 20 most innovative tech companies. They continue to invest in new products and services to serve musicians.



view website



Mirametrix enables natural human-computer interaction through its Attention Sensing technology, offering better user experiences across all devices. Lenovo, the largest PC maker in the world, selected Glance by Mirametrix to bring to market novel and natural user experiences on its Thinkpad Series. Mirametrix was acquired by Lattice Semiconductor in 2021 after operating profitably for an extended period.

