



Advanced Manufacturing Delegation to Italy & Germany

November 2024

Brillianetor

<https://www.brillianetor.com>

Multi-robot Collaborative AI Tools

Categories:

Machine Learning, Computer Vision, AI, Process Automation

Profile of the company:

Brillianetor's patented, collaborative AI software for the industry 4.0 sector mimics human collaboration skills to enable robots to work together intuitively in any dynamic environment.

The company's platform and tools enable quick, easy deployment and maintenance of multi-robot teamwork operations, with zero programming. Rapid and cost effective, it enables robots and other controlled devices to cooperate autonomously, react to unexpected events, and act together to enhance performance and production at the plant.



Perciv

<https://www.perciv.tech/>

Predictive Maintenance Platform for Industry

Categories

Operations Optimization

Profile of the company:

Perciv is creating a platform for predictive maintenance using fiber-optic sensing technology and advanced analytics. The platform utilizes tiny FBG sensors that can sense multiple physical phenomena such as strain, temperature, high-frequency vibrations, and acoustic signatures simultaneously.



Gidel

<http://www.gidel.com>

Supercomputer and Imaging System Components

Categories

imaging systems, Microelectronics & Photonics Solutions

Profile of the company:

Gidel is a high-end system development and integration company focusing on imaging systems and supercomputers.

In 1997, the company began providing its in-house development systems to the industry. Gidel has since been continuously developing innovative, field-programmable, gate-array-based re-configurable systems and development tools for diverse applications.

Gidel recently developed an accelerator board based on Alteras Arria10 FPGA, with competitive pricing suitable for small companies. Gidels technology has played a key role in the FPGA database revolution..

Polyn Technology

<https://polyn.ai/>

Neuromorphic Analog Signal Processing

Categories:

Operation Optimization, Computer Vision, AI

Profile of the company:

Polyn is developing Edge-AI neuromorphic analog technology to 'cast' AI software directly into ultra-low-power AIoT hardware. The company's solution can help clients run their artificial intelligence on various IoT and autonomous devices with higher security and reliability. The solution does not require an internet connection and reduces energy consumption and latency.

Polyn's solution helps customers from a wide variety of industries (e.g. IoT, security, robotics, Industry 4.0, mobility, electronics, wearables, healthcare/medical, etc.) to bring their AI solutions to the edge.

In addition to the conversion algorithm, Polyn developed a novel chip layout with a hardware analog neuron as a standard building block optimized for cost-efficient mass production.

The production of the chips is outsourced to third-party semiconductor foundries and is based on well-established industry-standard technological processes to ensure scalability and mass-market affordability.



NEXT PLUS

Next Plus

<https://nextplus.io>

Industrial Production and Maintenance Platform

Categories:

Operation Optimization

Profile of the company:

Next Plus is a no-code Smart Manufacturing Platform designed to enhance operational efficiency in manufacturing. It serves as a centralized knowledge platform connecting management, engineering, and manufacturing systems, offering digital work instructions, data collection, and fast insights for process improvement. The platform targets various industries, including aerospace, medical devices, automotive,

Next Plus is developed by N.P.O Systems, a subsidiary of SGC Knowledge Transfer, which was acquired by AeroDrome in 2021.



Prodac

<https://www.prodacsystems.com/>

Implementing creative solutions to solve complex business challenges

Categories:

Electronics Manufacturing, Manufacturing Execution System

Profile of the company:

PRODAC is an international software company that develops a unique MES (Manufacturing Execution System) solution for manufacturing plants specializing with beverage. PRODAC's customers are worldwide fortune 500 enterprises.



Plastic Back

<https://www.plastic-back.com/>

Plastic to Energy Conversion Technology

Categories:

Waste2X, Industrial Technologies, Material Innovations & Applications

Profile of the company:

Plastic Back has developed an environmentally friendly technology for converting plastic waste back into crude oil and other valuable chemicals. Based on this technology, Plastic Back has created a conversion unit that enables waste treatment and disposal sites to reduce the amount of waste put in landfills. The company's solution also provides waste producers such as factories, agriculture operations, and hospitals with an alternative to costly waste removal and treatment services.

Additional benefits of Plastic Back's solution include operation at room temperature, treatment of all plastic types with minimal need for presorting, small unit size, and reduction or elimination of greenhouse gas emissions through chemical conversion into hydrocarbons during the process.

EZMEMS

<https://www.ezmems.com/>

Multi-sensing and Connectivity for Edge Sensing and Analytics

Categories:

Inspection and Testing

Profile of the company:

EZMEMS is developing smart plastic sensors to enable sensor fusion systems for edge sensing, analytics, and insights. The company's technology is designed to allow easy integration of the many small, wireless, battery-free, low-cost, high-performance sensors needed in IoT and edge systems.

Kiami

<https://www.kiami-solutions.com/>

Smart Troubleshooting and Maintenance Software for Manufacturing Teams

Categories

Maintenance

Profile of the company:

Kiami offers a smart troubleshooting SaaS solution designed to optimize the way manufacturing teams repair failures and share best practices across all manufacturing sites and the entire supply chain. The system combines an intuitive knowledge base, expert system, learning algorithms, and advanced analytics to enable a faster repair process, reduce downtime, reduce spare parts consumption costs, and improve manufacturing efficiency and quality.

Kiamis smart solution also enables users to share troubleshooting best practices across teams and sites, which helps operation teams quickly repair a wider range of failures, reduces calls to support by up to 50%, shortens workers learning curve, minimizes losses due to worker departure, and reduces ramp-up and risks when introducing new equipment, systems, or products.

Kiamis equipment-monitoring solution combines statistical process control (SPC) and AI, with a unique patented analytical method which can identify hidden failures and optimize failure root-cause analysis.



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