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TECHNOLOGY AND SCIENCE DYNAMICS

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## COMPANY PROFILE

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The TSD business model is based on the manufacture of advanced mobile technology, sold in volume direct to enterprise, education, and government. The rapid move to mobile devices is unprecedented, known to be the fastest technology adoption in history. TSD offers customized solutions to schools, healthcare, enterprises and governments while creating high quality jobs not only in assembly but in engineering, sales, marketing, operations and management, is a certified Google and Microsoft partner. Mobile devices and applications are now powerful enough to redefine education and business. TSD's product positioning strategy occupies the middle grounds between the premium brands that can be prohibitively expensive to adopt in volumes; and the generic brands that lack performance and quality. In addition to TSD's standard product line, TSD's strong global supply chain channels allows for rapid product customization to cater to the needs of a variety of market segments.

## HISTORY

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Vahan Chakarian founded TSD Inc in 1998 as an American distribution and development company for highly specialized western (USA & European) forensics technologies with focus on the Far East markets. Today TSD Inc continue to lead and innovate in distribution, sales, training, hardware and software integration, development and localization of western forensics technologies, and is the largest value added distributor of western forensics, security and public safety technologies in the Far East, with clients that includes names such as: GE Security, Morpho Detection, L3, Access Data



Guidance, Logicube, Rapiscan, Allen Vanguard & Integen.

With TSD Inc continued success for 20+ years in knowledge transfer, international experience, technology development, technology localization and logistics, Vahan Chakarian in 2013 founded TSD LLC in Armenia with the ambition of leveling the quality of education globally, by making smart mobile devices available around the world. Today TSD is operating in 11 countries with 140+ employees and experiencing growth in demand for the TSD products in the education, mobile devices aviation, energy, military, healthcare, hospitality, retail and transportation sectors.

### STRATEGIC ALLIANCES AND PARTNERSHIPS

1. Microsoft Preferred Hardware Partner.
2. Google Certified Hardware Partner.

## ELECTRICAL ENGINEERING



Our Electrical Engineering team has experience spanning multiple industries including consumer appliance and mobile electronics, medical devices, automotive equipment, and high reliability military communications. We become a seamless extension of your team, providing digital, analog and RF design services. IPS' Electrical team can conduct feasibility studies and requirements development as well as execute design and facilitate fabrication of rapid prototypes. We employ industry standard tools to develop circuit schematic s, harnessing, and printed circuit board production level documentation. Our team is proficient in architecting and coding FPGA firmware and leveraging our hardware and firmware expertise to form a cohesive team with our skilled software developers. This intimate collaboration is vital during final product integration and we take full advantage of this relationship to provide the best possible realization of your project.

Technologies we've implemented for our clients include microprocessor design, image processing



and video analytic systems, wireless communications, hybrid electric vehicular systems, electric motor controllers and high capacity energy storage.

### ***Capabilities***

Requirements Capture and Management

Architecture Design

Circuit Design

Printed Circuit Board Design

Circuit Analysis

Circuit Simulation

Firmware Design

Rapid Prototyping

Test and Validation

Production Sustainment

### ***Competencies***

Microprocessor/Microcontroller Design including PIC, Atmel, STMicro, ARM, TI, Intel, Marvell, and Freescale

High Speed Digital Communications including TCP/IP, CAN, I2C, SPI, USB, RS-232, RS-422/485

Power Supply Design

Power Management

PoE/PoH

Motor Controls/Motion Controls

Advanced Energy Storage Solutions (Batteries, Ultracaps)

Energy Harvesting

Wireless communications including Zigbee, BT, BTLE, Wifi, GPS, WAN (3G, 4G, LTE, LTEA)

Intrinsic ally Safe Design for hazardous environments (IECEX , ATEX, UL913)

Sensor integration including accelerometers, biometric s, temperature, position & orientation