



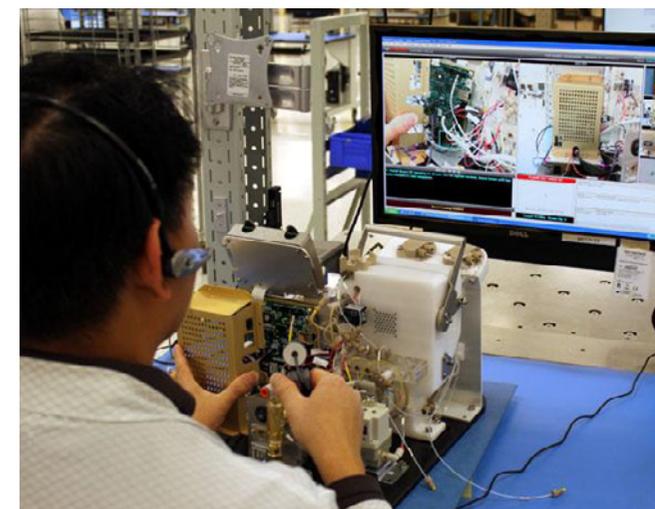
# Delivering Peace of Mind

Paramit's Malaysian presence is expanding, and becoming more sophisticated and focused, helping to establish a global footprint for the leading US-based contract manufacturer of complex medical device and life science instruments

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The contract manufacturing space is not known for its innovation, but one company is transforming the industry in Malaysia and the US. Paramit, an international firm that develops and contract manufactures complex medical device and life science instrumentation, has a unique focus on systems, process and engineering expertise that began in the US and has been transferred to its Penang facility, enabling the Company to scale projects, address new regions and create peace of mind for OEMs. The Company is entering an exciting new phase of its evolution that



involves further specialising its Penang work and adding more robust and comprehensive capabilities.

The Company is expanding its Penang presence later this year with a state-of-the-art facility designed to replicate the better than best-in-class quality and extreme performance of its US headquarters.

Paramit's product development offering is modernised and based on the acquisition of Lathrop Engineering, which shares a unique specialisation in complex medical and life science instrumentation; a move that enables the Company to handle product realisation from the ground-up all the way through product delivery.

In the design phase, customers uniquely control their product vision throughout the development process and own their design when completed. Unlike some design firms, the Company does not embed proprietary components or systems into its products so as not to "entangle" customers.

By combining design and manufacturing in one entity, Paramit is creating a "transferless" process that may reduce or even eliminate the New Product Introduction (NPI) phase. This transferless process will be designed



## PARAMIT Manufacturing engineering expertise:

### PCBA

- > PCB layout
- > Valor DFM
- > Design For Testability (DFT)
- > Analogue, digital and RF capabilities
- > Prototyping

### Test Development (PCBA and Systems)

- > OI, AXI program development
- > ICT development
- > PCBA functional test development
- > Sub-assembly test Development
- > System – functional test development
- > System – wet testing

### Documentation Engineering Services

- > MPN validation
- > BOM management/cleanup
- > RoHS, REACH review
- > EOL, obsolescence review

to reduce time to market by several months, reduce NRE costs and ensure consistent, exceptional quality from the first product to the last.

**Market goals**

When Paramit first entered Malaysia by acquiring a 82,000 square feet facility and 500-employee workforce in 2011, the facility produced complex security technologies like fire and gas detection solutions; power tools and digital level measurement tools; automotive heating solutions; and farm information management solutions for the agriculture sector. However, the Company's strict focus on process, engineering and ISO 9001 and ISO 13485 compliance has been in place throughout all of the above

**PARAMIT  
Medical and life science products:**

- > Ventricular assist devices
- > Robotic surgery
- > Genome sequencing/DNA identification
- > Digital pathology
- > Telemedicine & mobile robots
- > Refractive laser surgery
- > Home dialysis machines



sectors, enabling the Company to easily expand its complex medical device and life sciences work into an area of focus in the new Penang facility.

The new Malaysian facility is 162,000 square feet and doubles the Company's capacity in Penang. The architecture of the new Penang facility addresses the unique characteristics of the Malaysian climate and is designed to create maximum energy efficiency. For example, the facility will use canopies of trees to create shading and in-slab cooling to reduce power requirements, creating what is being called "the factory in the forest". In addition, it is designed to be exceptionally employee-friendly, with gardens and waterfalls on multiple levels and large gathering spaces throughout the facility.

The Paramit facility will be located at Penang Science Park in Bukit Minyak, and is expected to ultimately employ a workforce of 800, with current customers and its skilled workforce transitioning to the new facility upon completion.

**Zero defect approach**

Manufacturers often talk about their number of customers and geographic footprint, but Paramit's real differentiator in both the US and Malaysia derives from its quality.

Achieving better than best-in-class quality in SMT and system assembly, 100 percent on-time delivery of finished products and efficiency levels surpassing those of even Six Sigma, Paramit sets itself apart from any other contract manufacturer globally.

In line 100 percent 3D inspection of solder paste deposition, quick machine setup for high mix environments, multi-product single setup algorithms, in line automated optical inspection machines and process validation all contribute to such enviable levels, and result in an almost unbelievable quality level of 10 DPMO (defects per million

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opportunities), compared to the best-in-class IPC standard of 30 DPMO in a high mix, low volume environment.

Further through the process, the design and engineering teams are equipped with the very best in functional test programs, internal ICT and functional test development machines, and system level functional test development facilities. This ensures the business stays true to the founding origins of the Company in the testing domain, and the long-standing tradition of excellence in this area that has followed ever since.

Mechanical assembly has also consistently achieved near to zero defects - less than one DPMO across system assembly in comparison to the best-in-class yardstick of 200 DPMO - largely thanks to its patented vPoke system.

"vPoke takes complex assembly and simplifies it into hundreds or thousands of individual steps that are all documented," according to

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▼ Dense tree belt planting provides shade to the car park, steps up to all office levels and down into courtyard before enveloping the factory building

the company. “vPoke controls every input into every process sequence; every process sequence is verified, and this verification is captured as part of a complete device history record. Subsequently, vPoke guarantees that every instrument will be built the same way every time.”

**Extreme performance**

The Company’s concept of “extreme performance” is based on the team’s ability to actively problem-solve, innovate and improve, all the time.

Its supply chain management efforts are indicative of its focus on continuous improvement, learning from the examples set in the US to create a more global distribution, procurement and logistics plan worthy of the products being deployed.

“We proactively manage supplier

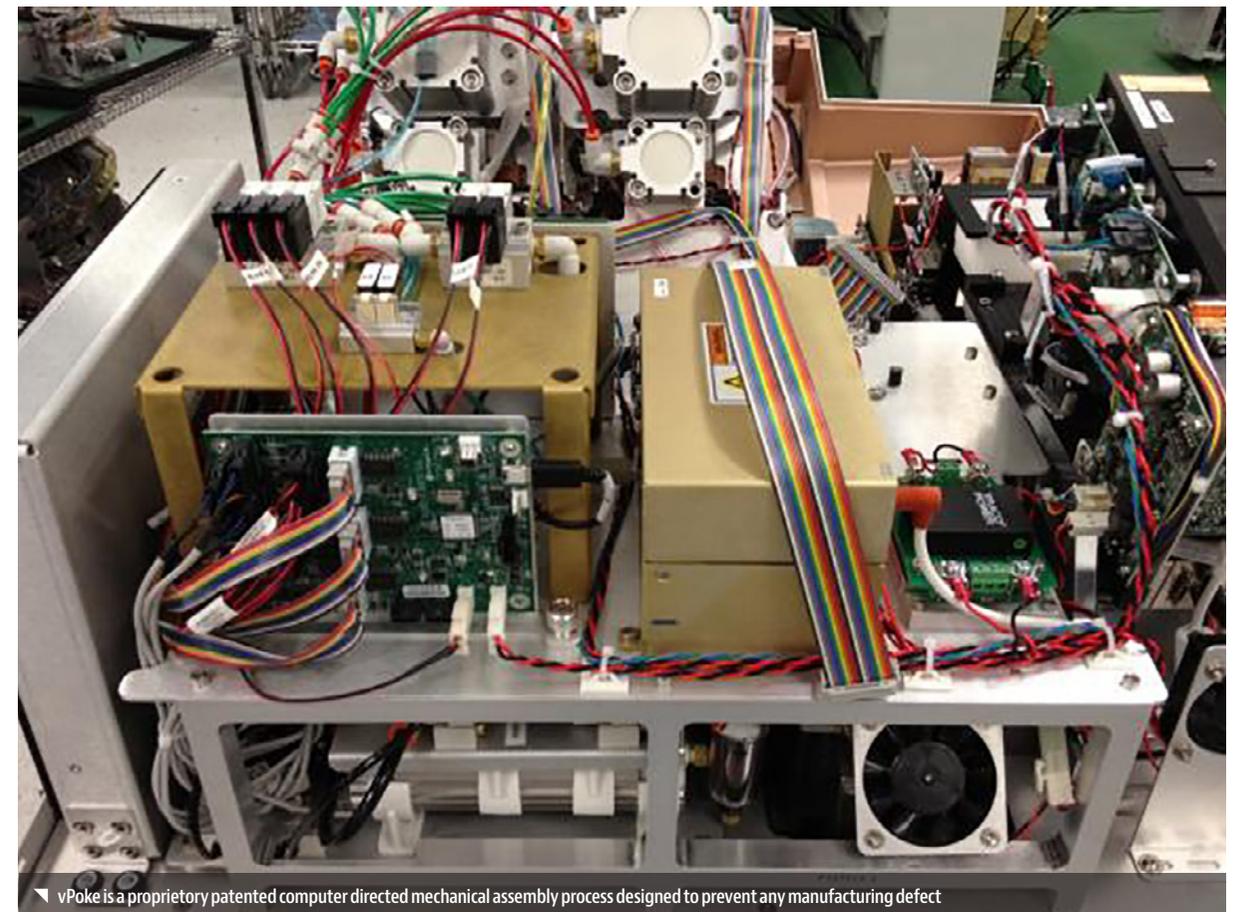
**With more than 5,000 standard components and 3,000 customised parts managed throughout the Company, and materials brought in from as many as 20 different countries**

quality, EOL issues and reduce costs for our customers,” the Company states, “and our value-add programme includes safety stock for long lead time items; just-in-time (JIT) for bulky items; vendor managed inventory (VMI) to reduce excess material exposure; automated execution tools for order management; and daily tracking of execution success.”

With more than 5,000 standard components and 3,000 customised parts managed throughout the Company, and materials brought in from as many as 20 different countries, such stringent monitoring and honing of the supply chain is, of course, essential.

**The “Centerpoint” culture**

Paramit strives to be viewed as an extension of its customers’ teams. This



vPoke is a proprietary patented computer directed mechanical assembly process designed to prevent any manufacturing defect



Manufacturing facility in Bay Area totals 152,00 square feet with more than 300 employees

is possible because of the Company’s unique “Centerpoint” concept. The idea is that all internal team members and the customer are in complete agreement all all times due to a continuous information flow and close collaboration at every step throughout the project. What results is a mutual

understanding, which removes ambiguity and enables Paramit to be original in its problem-solving.

Its proprietary systems and processes – such as vPoke and Centerpoint – are examples of the Company’s ingenuity and creative approach in an industry not necessarily known for innovation.

It is this unique view on its business that sets Paramit apart from others, and will distinguish its new Penang facility from other contract manufacturing facilities in the region as it unveils its clean and contemporary new location later in the year.