

**D**O YOU know the highly precise flexible endoscopy, used as a medical probe, could well have come from a Singapore manufacturer?

Yes, state-of-the-art medical and surgical solutions such as disposable blood pressure transducers and the innovative multi-port robotic system for orthopaedics are among the one-stop surgical robotics solutions produced by Fong's Engineering & Manufacturing Pte Ltd, an engineering and manufacturing company that produces advanced medical and surgical solutions.

Jeremy Fong, 66, is chief executive officer of Fong's and FSP Holdings Pte Ltd, the parent company of Fong's.

Fong's was started in 1982 by Fong brothers Vincent and Ben. Subsequently, their other siblings joined the company, including the eldest brother, Jeremy. Their sister, Wena was director of finance and also handled human resources and administration. Two younger brothers, Roy and Clement, became directors of sales and marketing.

Fong's has established itself as a precision engineering company and has attained several professional and industry accreditations such as ISO13485. Fong's was acquired by Dymon Asia Private Equity in 2017.

### Smart transformation

Being in the healthcare industry, Fong's has always wanted to stay abreast of the latest technology and innovative practices.

Given the growing importance of the Internet of Things (IoT), Fong's decided to work towards Industry 4.0. This was a major decision by the management as it would require Fong's to undergo a series of transformations.

CEO Jeremy Fong shared: "Despite the high risks and costs involved in the project, Fong's still prioritises transformation to allow it to keep up with current trends in data technology and automation."

To date, Fong's has invested a total of S\$7 million to transform the company's workshop and production lines into a smart factory by linking the equipment so that they will work integratively and seamlessly.

Embracing smart technology is a tedious task as it involves changing the entire manufacturing system.

# On a smart journey

Manufacturer of surgical robotics products has a roadmap for Industry 4.0 to stay ahead.

BY ERNA ADLINA BTE KAMARUL AZMAN, GAN JIN HUI, NAHIDHA SHAIKH AND SIM SHI RONG



Hence, this project has been divided into several phases. With the first phase of the smart factory completed, Fong's was preparing for the official opening by Senior Minister of State for Trade and Industry Koh Poh Koon in July 2019.

Fong's has now embarked on the second phase of the smart factory project which will have a Visualisation Centre built beside the production lines. This will allow its engineers to identify machines that are idle, in use and in-maintenance, providing a holistic view of the machines' status – all from just checking one control panel.

When completed by end-2020, the system would help to automate employees' work, reducing their demanding physical work load.

### The smart journey

One of the major challenges of transforming a company is ensuring that it takes place throughout the firm and it is not just confined to top management.

Mr Fong strongly believes in having a clear direction and communicating the vision to the employees. He said: "It's no use if you are changing your entire business and are trying to be ahead of time, but your people

don't know what's happening."

Therefore, training employees is a major undertaking to facilitate the success and smooth transition to Industry 4.0.

In ensuring the alignment of employees' and the company's goals towards the change, Fong's adopted the ATT framework – Adaptive, Technical and Technology.

Under the ATT framework, employees would embark on a training roadmap to better understand the purpose and impact of the transformation process.

Initially, the management did it on a small scale with groups of five to



(Left) Jeremy Fong, CEO of Fong's Engineering & Manufacturing Pte Ltd and FSP Holdings Pte Ltd. (Above) Quality control is of the utmost importance for Fong's at its factory which is located at Loyang Way. PHOTOS: FONG'S ENGINEERING & MANUFACTURING PTE LTD

seven employees of the same technical level and capabilities.

### Upskilling

This was important as it allowed Fong's to identify gaps and conduct a proper training needs analysis.

As part of the training, Fong's sent its employees to complete part-time diploma programmes at Nanyang Polytechnic and Temasek Polytechnic.

The courses enhanced the employees' technical and soft skills such as communications. Mr Fong shared how it is important for employees to know Fong's core values – quality, customers, integrity and passion.

It has enforced a culture which prioritises high quality products and service standards.

He emphasised: "In the medical technology industry, any breach of quality is equivalent to breach of trust."

The emphasis on quality is of utmost importance – products which do not meet quality guidelines can have detrimental consequences on human lives.

As a result, the company's core values have been cascaded down from top management to the entire organisation, ensuring that all employees know what Fong's really represents – by heart.

### Going forward

Fong's has several plans to implement in the near future, which will push sales growth by 30 per cent by 2019 and 20 per cent in 2020.

According to the exclusive contracts signed between Fong's and its clients, the company will design and develop four products that will be launched and distributed worldwide.

To manufacture these new products, Fong's plans to increase its manpower from 164 to 180 employees by end-2019.

Fong's currently coordinates shipment of its products and services to the United States, its primary market, through Singapore, where its sole office is located.

In future, Fong's plans to start a repair centre in the US which will allow it to serve its clients better.



**ENTERPRISE 50**  
Celebrating Singapore's Enterprising Spirit 2019

*This series is part of the Enterprise 50 Educational Project between the E50 partners and the NUS Business School. Fong's Engineering & Manufacturing Pte Ltd was among the winners in 2018. The annual E50 ranking is co-organised by The Business Times and KPMG, sponsored by OCBC Bank, and supported by Enterprise Singapore, Singapore Exchange and Singapore Business Federation.*