

Solid Edge

IDEA

Using Solid Edge helps company seize market opportunities; additional benefits include improved customer communication, faster product turnaround and improved operational efficiency

Industry

Industrial machinery, energy and utilities

Business challenges

Upgrading design tools from 2D to 3D to enhance the quality and efficiency of the entire design process

Improving the presentation of design concepts to help customers more fully understand and imagine new products

The ability to more precisely simulate the performance of designs and assemblies to lower error rates

Keys to success

3D CAD design solution for better product visualization and understanding of product functionality

Shorter learning curve and easily understood drawings for more flexibility in deploying manpower

Professional services and support from Siemens PLM Software partner: NST Technology

IDEA delivers innovative new 3-axis robot

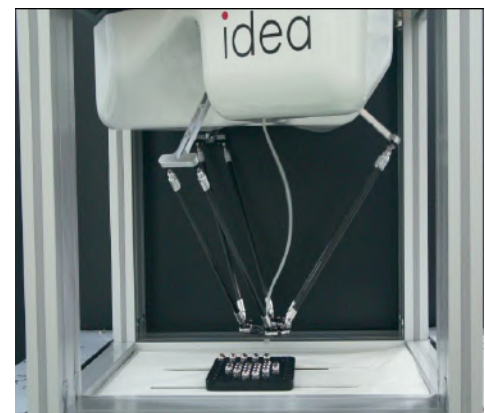
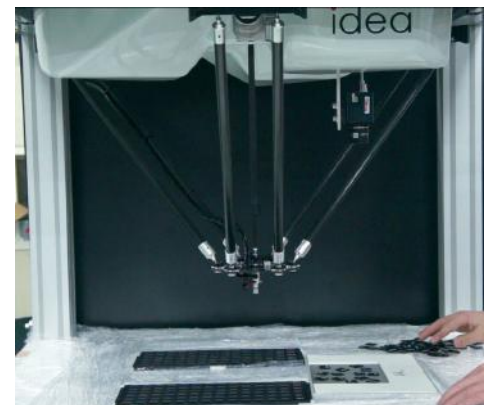
Identifying and filling a market gap

IDEA, formally known as Intelligence Develop Engineering Aid Ltd., designs and builds precision machinery for the manufacture of solar technology and light emitting diode (LED) energy-saving products.

IDEA's research and development (R&D) staff closely follows industry trends, consistently develops original ideas and works with business associates in Japan for technological integration in the development of various types of automated equipment.

The company's R&D department noticed that manufacturers based in Taiwan that produce semiconductors, liquid crystal display (LCD) panels and solar panels often import highly automated machinery. IDEA saw a gap and filled it, now playing an important role in developing such equipment locally. The company wins this business by producing high-quality, lower-cost products.

In 2006, while engaged in a project with the Industrial Technology Research Institute of Taiwan, IDEA became convinced of the advantages that a 3D computer-aided design (CAD) system



could provide from both a design and competitive-edge perspective.

After evaluating several 3D systems, including SolidWorks® software, and conducting the testing recommended by the

Results

Significantly improved communication with customers

Material weight calculated three times faster than prior process

Increased accuracy in calculating material distortion

Greater production precision and lower error rates

Accelerated design cycle; greater product innovation

"The upgrade to Solid Edge not only helps both our engineers and our customers better understand design details through simulation, but it also enhances the communication between engineers and external partners in post production, resulting in fewer errors."

Justin Su
President
IDEA



Industrial Technology Research Institute of Taiwan, IDEA selected Solid Edge® software as its system of choice. IDEA liked Solid Edge, because it's easy to learn and use, and offers fast output and accuracy. The decision to go with the Siemens PLM Software technology has proven to be a wise choice.

3D simulation saves time and money

"Originality is our core competency," notes Justin Su, IDEA's president. "3D CAD greatly enhances our design ability and efficiency. The upgrade to Solid Edge not only helps both our engineers and our customers better understand design details and product functionality, but it also enhances the communication between engineers and external partners in post production, resulting in fewer errors."

3D represented a breakthrough over 2D in a variety of ways, especially in terms of client communication. Su explains, "It is not easy for traditional 2D systems to check the interference between the components, and simulation is not convenient. With Solid Edge, 3D interference checking can proceed easily. The engineers can import existing 2D drawings into Solid Edge for further design. Engineers can present the outer appearance, size and human machine interface to the customer to give them a better idea of the 'look and feel' and functionality of products under development, greatly improving understanding and collaboration between customers and engineers."

Solutions/Services

Solid Edge
www.siemens.com/solidedge

Customer's primary business

IDEA designs and builds precision machinery for the manufacture of solar technology and LED energy-saving products.
www.idea-co.net

Customer location

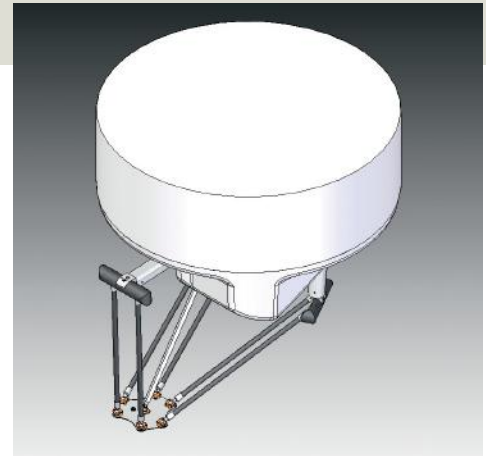
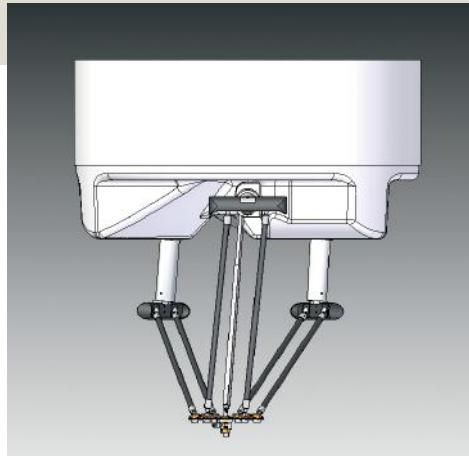
Miaoli
Taiwan

Partner

NST Technology Inc.
www.solid-edge.com.tw

"Precisely calculating the weight of material is very important, because different materials have different load bearing capacity. Solid Edge is three times faster than 2D software in accomplishing these calculations. It is also able to calculate material distortion, which was impossible in the past."

Rex Lin
General Manager
IDEA



Seizing market opportunities with Solid Edge

IDEA has found that companies from many traditional industries in Taiwan wanted to use automated equipment to increase efficiency, but they were deterred by the high costs of imported machinery. IDEA seized this opportunity. Capitalizing on its years of experience in designing such machinery, the company introduced its very first product, which the engineers nicknamed "3-axis Robot." "This is a type of overhang machinery that holds heavy material," says Rex Lin, the company's general manager and head of design. "It has better holding power. The average holding power of similar products on the market is 2 kilograms (kg). Our robot has a holding power of 8 kg, at only one fourth the cost of competitive products."

Lin points out that the enhanced simulation capabilities provided by Solid Edge helped IDEA simulate both forces and material distortion when designing the robot: "Precisely calculating the weight of material is very important, because different materials have different load bearing capacity. Solid Edge is three times faster than 2D software in accomplishing these calculations. It is also able to calculate material distortion, which we used to have significant problems with."



Lin concludes, "Using Solid Edge enables us to not only quickly leverage market opportunities, but to bring innovative products to market on a continuous basis."

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