

# Venture Corporation Limited

Contract Design Manufacturing/Original Design Manufacturing

Singapore



## Overview

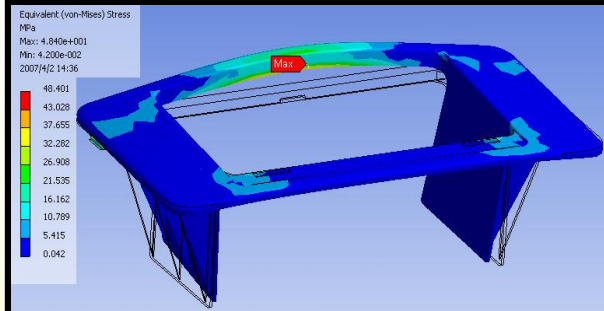
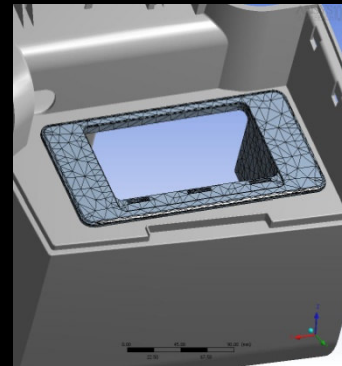
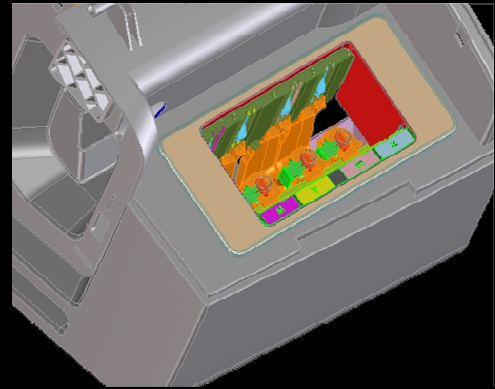
Venture Corporation Limited, a leading global electronics services provider, offers an excellent combination of outstanding management, world-class technical capabilities, innovative manufacturing technology, reliable testing capabilities and state-of-the-art facilities. Founded in 1984, the Venture group comprises about 40 companies with global clusters of excellence in South-East Asia, North Asia, America and Europe, and employs more than 17,000 people worldwide.

With an excellent track record, strong engineering expertise and experience, Venture is undisputedly a first class electronics services provider. Today, top Fortune 500 companies including Agilent Technologies, HP, IBM, Intermec, as well as other multinational companies have chosen Venture as the strategic partner for their long term manufacturing needs. These partnerships bear testimony of Venture's relentless pursuit of manufacturing and engineering excellence, continuous innovation, and absolute commitment to quality and delivery, thus meeting total customer satisfaction.

## Testimonial

DesignSpace is an important tool during the initial period of product development. The computer simulation gives the designer a good feel of the possible solutions that might be implemented. This mathematical modeling cut down the prototyping design iteration cycle that is part of the conventional product development. Reducing the design optimizing process will decrease the development time and cost significantly. These advantages give the competitive edge to our Venture R&D Lab as a world-class R&D team that develops product of the finest quality.

**Yap, Yaw Horng**  
R&D Engineer  
Venture Corporation Limited



## Challenge

In one of our customer's cost reduction project, we are required to design an aesthetic casing that hides unused slots for replaceable ink supplies. Because this part needs to be attached to an existing product, there were several design constrains. On top of that difficult restriction, the solution needs to be easily assembled or disassembled, withstand packaging abuse test and also be competitive in cost.

## Solution

One of the main considerations was the force experienced during assembly. For simple snap design, the conventional cantilever calculations were used to assess the stress during assembling. For the more complex snap design, Ansys Design Space Simulation was used to perform stress analysis. Based on the results, we were able to identify potential problematic areas of high stress during assembly and disassembly.

## Benefits

By narrowing down the options based on the simulated results, we were able to save on design iteration cost and time. Most importantly, we are able to speculate the behavior of the plastic cover during assembling and disassembling even before we fabricate a prototype for verification. DesignSpace Simulation was used to further optimize the final design before the part was being tooled out for production.