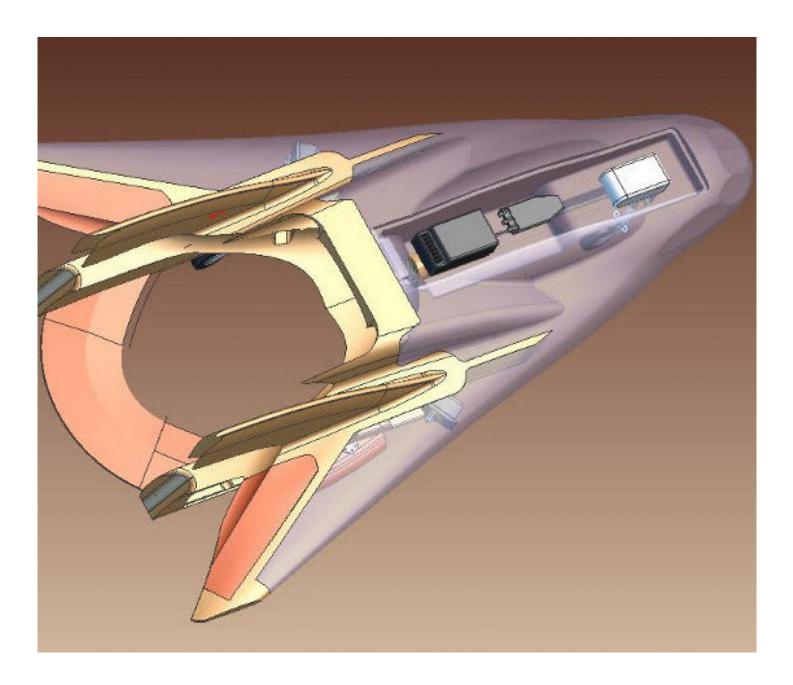
## Klarm China Offers Rapid Prototyping Services from Prototype Design



**Guangdong, Guangzhou, Mar 3, 2021 (**<u>Issuewire.com</u>**)** - Being a rapid prototyping company, Klarm Prototyping Limited offers <u>cnc metal parts rapid prototypes</u>, <u>precision plastic machining parts</u>, and other wide ranges of prototyping services for customers in China or abroad. As a reliable manufacturer, the below important and general principles are always kept in mind when providing prototype design service.

• Simplicity: Keep it simple for success (KISS). This is due to the fact that cost correlates with size/mass and complexity/number of parts.



- Clarity: is the function of the machine, product, or component clear for all to see?
- Safety: Safety should always come as the first priority in all principles. Is the machine inherently safe? A product should be designed to be safe for all people who will encounter it during its life. Is it reliable?
- Some design principles can be used to evaluate whether a design is good or not, or why it is better than the others. The critical parameters in designing a product are called design parameters (DPs), and the critical functions a product needs to satisfy are called functional requirements (FRs). One critical question, which is critical for design judgment, is how many DPs will a product need to satisfy FRs? An independent axiom or functional decoupling axiom stated by Nam Suh [Suh01] is that an optimal design always maintains the independence of FRs. In an acceptable design, the DPs and FRs are related in such a way that specific DP can be adjusted to satisfy its corresponding FR without affecting other FRs. As an example, when designing a refrigerator door, assume that there are two FRs to be considered: providing an insulated enclosure to minimize energy loss and providing access to the food in the refrigerator. Is a vertically hinged door, just like most of the current refrigerators used at home, a good design? When the door is opened, cold air will be lost, and thus the two FRs are coupled. Therefore, it is not a good design. On the contrary, a horizontally hinged and vertically opening door, as seen in some stores, is a good design. Why are most of the house refrigerators vertically hung? Are not they bad designs? Yes, they are bad designs if there are only two FRs. However, if one considers other factors, such as convenience in the design, a vertically hung door may still be a popular choice. Therefore, it is very critical for Chinese rapid prototyping manufacturers to define the true FRs to end up with a design that fits the customers' needs.

Another axiom is called the information or physical coupling axiom. It states that the best design is a functionally uncoupled design that has minimum information (design and manufacturing) content. Since both FRs are embedded in the same physical device rather than two separate components, minimum information content (design and manufacturing) is achieved. In conclusion, according to the functional decoupling axiom and physical coupling axiom, the design is good.

## **About Us**

Klarm Prototyping Ltd strives to turn out to be the most professional <u>rapid prototype China</u> supplier. The firm continuously tries to reach a top excellence level in quality. They want to deliver customers with precision prototypes sold at competitive prices and delivered on time.

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