Plan of Cooperation and Co-founding a Company Shanghai New Product Technologies Ltd.

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- Project Background

Rapid Manufacturing Technology is a fast manufacturing technology formed by CAD, Reverse Engineering (RE), Rapid Prototyping (RP) and Rapid Tooling (RT).

3D Printing Technology is the core of rapid manufacturing, and can produce the prototype from CAD three-dimensional entity model directly in a few hours or dozens of hours, which provides a entity with richer and more intuitive information than the drawing and computer screen. Adopting this technology, we can take various factors of the product life cycle into consideration, to make sure the successful development at a time, thus reducing the development cycle, improving the quality of the product, reducing the cost, avoiding the investment risk of development, so it is praised as the strategic tool of the parallel engineering environment. Using this technology we can make a great economic and social profit.

Under the promotion of **Made in China 2025**, the government's policy strongly supports the 3D printing industry, which is in the rapid development period, and the technological bottleneck has been breaking through and the market space is huge.

According to the data, the global amount of 3D printing market reached \$51.65 billion in 2016, and the annual growth rate exceeded 30%. The global 3D printing market is expected to grow rapidly, and the market amount will be more than \$11 billion by 2018. In 2016, the amount of China's 3D printing market reached 7.8 billion RMB, and the annual growth rate exceeded 70%. The amount of our country's 3D printing market will be more than 20 billion yuan by 2018.

Based on the 3D printing, our cooperative company is to carry out the product design, 3D printing, fast manufacturing, small batch processing and the other rapid manufacturing technology's service.

Our business is widely used in various fields, such as jewelery, footwear, industrial design, construction, automotive, aerospace, dental and medical equipment industry, education, geographic information system, civil engineering, etc.

二、Market Situation

At present, 3D printing is still an emerging industry. The popularization of 3D printing in China has been widely recognized and applied in the industry area.

With the popularization of 3D printing technology, the development and application market of it has gradually been discovered by the market, forming a new market.

The domestic 3D printing market is not fully activated, causing the insufficient industrialization, short of talents, and the incomplete industrial chain. It has not yet formed a brand advantage in the application of market development and technology field.

From the perspective of development, 3D printing technology not only combines with the personalized, ordered and convenience manufacturing, but also assists the traditional manufacturing process. The development potential of this new market is huge.

With the advancement of technology, 3D printing technology will continue to evolve, and will become the basic technology and equipment of many design / manufacturing companies, research / education institutions.

三、Business Field

(—) Automotive Field

1. Reverse Design







The development process needs a lot of capital, technical and talent accumulation. At present, many automobile manufacturers don't have a high R&D capability. If we solely rely on the forward development, the design process will be slow, and the design capability will not improve significantly in a short time, lacking the market competitiveness. Meanwhile if we completely rely on the foreign technology, we would never possess our own R&D ability. Considering the new energy vehicles develop vigorously and all kinds of auto enterprise improve the independent development ability, the only way to catch up with the world advanced level is to stand on the giants' shoulders and recruit the industry talents, so as to do the production independently. Therefore, the reverse engineering is the key technology in the process of digestion, absorption and improvement of the new international technology.

2. Sample Processing









3D printing, whose main function is not substitute but supplement, is an important supplement to the traditional processing, so the combination of 3D printing and CNC is a very good form.

The advantage of 3D printing is cutting out the mould unloading of the complex structural parts, which shortens the new product development cycle and saves more manpower, money and time.

3. Trial Production and Test











manufacturing industry to shorten the new product development cycle, reduce the cost under the premise of improving product performance and quality, in order to quickly respond to the users' latest requirements. This trend is particularly evident in the automotive, motorcycle, electronics, household appliances, toys and other manufacturing industries.

Automobile is one of the most complex and influential consumer goods. The pressure from the users and competitors forces the auto industry to optimize the product development process, rapidly improve the quality of the products and bring them to the market, and also meet the users' requirements maximally. The iterative development requires the automobileenterprise to look for a quick way to produce the prototypes, test cars, etc. There is a wide development space for the application of the rapid mold in this area.

(二) Medical Market



The medical equipment market is characterized by the small quantity and many varieties of the instruments. The feature of the rapid mold meets this demand and gives a wing to the development of the emerging medical device market.

- (三) Home Appliance Market
- (四) Industrial Design
- (五) Educational Field
- (六) Advertising, Wedding and Souvenir Market
 The application of the above fields has been fully verified, and the market is developing rapidly.

四、 Cooperation

(—) Cooperation Purpose

Welcome the foreign and domestic customers to cooperate with us. With the principle of complementary advantages, resources sharing, mutual benefit and common development, we will jointly fund to establish a service company based on 3D printing technology, to achieve the goal of win-win development. The name of the company shall be negotiated by both of us, and eventually is subject to the legal name of the business registration authority.

(二) Requirements of Cooperation Resource

The enterprise or individual with the cooperative intention is required the industry experience or resources.

We provide the technology and key technicians as well as the early market development.