Design of Jewelry Product Based on Inventor

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Keywords: Inventor, Jewelry, Jewelry design.

Abstract. This paper mainly introduces the various methods and techniques of using 3D solid design drawings of Inventor jewelry products. The main contents include: jewelry design and drawing of the preparation of knowledge, Inventor basic knowledge, jewelry design Inventor function commands, fast drawing entity tool, jewelry design in the drawing.

Introduction

Jewelry was produce in ancient times with the development of human society[1-2]. In a long historical period, jewelry were made by the artisans’ experience, which is lack of predictability, and discomfort parts of the changes are done in the production process, which take time and effort[3].

Inventor product line is changing the traditional CAD work flow path: because of the simplification of the complex three-dimensional model of the creation, engineers can focus on the design of the function to achieve. By rapidly creating a digital prototype, and using the digital prototype to verify the function of the design, engineers can be more easily found in the design of the error. Inventor can accelerate the concept design to the whole process of product manufacturing[4-5].

The Overall Architecture Build

This paper mainly introduces the jewelry production process, which is divided into 4 parts, including drawing the main stone model, drawing the distribution model, drawing the product ontology model.

Jewelry Detailed Design of Three-Dimensional Diamond Production Process

1) Create a rough draft, and convert the 2D sketch to a 3D model, as shown in Figure 1 and Figure 2.

2) Repeat 1 to complete the modeling of the stone, as shown in Figure 3.

3) Set up the stone material, as shown in Figure 4.

![Figure 1. 2D sketch.](image1.png)  
![Figure 2. Three dimensional model.](image2.png)
**Drawing Jewelry Ontology Mode**

1) The upper part of the jewelry model, as shown in Figure 5.

![Figure 5. Upper part of jewelry body.](image)

2) The details of the processing, as shown in Figure 6.

![Figure 6. Amendment details.](image)

3) The top modeling, the subject completes, as shown in Figure 7

![Figure 7. Completion of the main jewelry.](image)
**Drawing the Main Stone Model**

1) Create a rough draft, and convert the 2D sketch to a 3D model, as shown in Figure 8 and Figure 9.

2) Repeat 1 to complete the modeling of the stone, as shown in Figure 10.

3) Set up stone material, as shown in Figure 11.

![Figure 8. 2D sketch.](image1)
![Figure 9. Three dimensional model.](image2)

![Figure 10. Basic model of the main stone.](image3)
![Figure 11. Changing the material.](image4)

**Each Module Assembly**

To join the main stone model, as shown in Figure 12.

![Figure 12. Adding the main stone model.](image5)

**Summary**

This paper draws jewelry model using Inventor. The main contents include: jewelry design drawing for knowledge, basic knowledge of Inventor, jewelry design Inventor function, fast drawing tools, the main stone model design, model design, jewelry design body model, assembly model.
Reference


