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Comparison Between Some Smart Technological Tools and Their Results in Children's Jewelry Crafting

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Abstract:

Children are always inclined to diversity and change in their possessions, so all products directed at children, especially jewelry, are always in need of enriching the shape and diversity of colors, which increases the importance of smart technological tools that support the processes of designing and implementing children's jewelry, which have a high ability to achieve this.

The tools that support the design and implementation of jewelry are constantly evolving with the acceleration of technological development, which resulted in the emergence of generations of advanced smart technological tools that have the ability to enhance the shape and colors of jewelry in general and children's jewelry in particular. The research problem is represented in the modesty of the tools used in the design and implementation of children's jewelry and how to benefit from smart technological tools in the processes of designing, shaping and implementing children's jewelry. The research aims to build a knowledge base about the smart technological tools used in the design and implementation of jewelry, in addition to the possibility of employing some of these tools such as fused deposition drawing pens and photopolymerization drawing pens in implementing children's jewelry and comparing their results. The importance of the research lies in its attempt to employ some smart technological tools such as fused deposition drawing pens and photopolymerization drawing pens in implementing children's jewelry and comparing their results. Through the descriptive analytical approach, the research concluded that there are multiple types of smart technological tools used in the design and implementation of jewelry such as digital drawing tools, virtual reality tools and augmented reality tools, in addition to drawing tools and three- and four-dimensional printing. Through the experimental approach, the research concluded that it is possible to benefit from some smart technological tools in completing the design and shaping processes of children's jewelry.

Main Results: 1- The possibility of using fused deposition pens in the implementation of children's jewelry. 2- The possibility of using photopolymerization pens in the implementation of children's jewelry. 3- The suitability of using thermal deposition pens in manual modeling processes for children's jewelry. 4- Photopolymerization pens are not suitable for completing manual modeling processes for children's jewelry. 5- Thermal deposition pens are not suitable for use in color inlay processes for children's jewelry. 6- Photopolymerization pens have the ability to complete color inlay processes for children's jewelry. 7- Thermal deposition pens help in obtaining pendants that glow in the dark and can be used and worn directly. 8- Thermal deposition pens help in obtaining pendant models that can be cast using the same steps as the lost wax casting process. 9- Photopolymerization pens enable us to obtain color areas with a regular surface and high cohesion strength with the piece of jewelry.

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Smart Tools, Children's Jewelry, 3D Pens.

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