SMART SUPERMARKET

ABSTRACT

3D modeling of products using AR aims to create a realistic representation of products in a virtual environment, utilizing augmented reality (AR) technology. The project's main objective is to allow users to interact with 3D models of products as if they were physically present, enhancing the shopping experience and facilitating decision-making. The project will involve the creation of a platform that allows users to access the AR models of products, and interact with them using their smartphones or other AR-enabled devices. This platform will be integrated with e-commerce websites, enabling customers to see the products in 3D and explore their features, before making a purchase. The project will use state-of-the-art AR technologies, including ARKit and ARCore, to create a high-quality user experience.

The primary goal of the project is to make an intuitive and easy to use 3D modeler. The user should be able to rotate and look at the model in different angles effortlessly, even while simultaneously working on the model. The software should also be easy for any user to try out, without having to invest in expensive equipment, as is often the case when new techniques are introduced.

Implementation :

3D modeling involves creating a digital representation of a three-dimensional object or scene using specialized software. The process typically involves creating a wireframe of the object and then adding textures, colors, and other details to create a more lifelike representation. The final product can then be rendered into an image or animation for use in various applications, such as video games, architecture, and product design. There are many different software packages available for 3D modeling, each with its own strengths and

weaknesses, so choosing the right one for a particular project often depends on the specific requirements and skill level of the user.

Technologies Used :

1. Computer-Aided Design (CAD) software such as AutoCAD, SolidWorks, and Pro/Engineer.
2. 3D modeling software such as Blender, Maya, and 3ds Max.
3. 3D scanning technologies, including structured light scanning, photogrammetry, and laser scanning.
4. Augmented Reality (AR) and Virtual Reality (VR) technologies for product visualization and interaction.
5. 3D printing technologies for prototyping and low-volume production.