

3D modeling is a technique that's used to create a 3D representation of any surface or object.

The 3D modeling process creates a digital object that's capable of becoming fully animated, making it an important process for special effects and character animation.

The created object is called a 3D model and such models are used in various industries.

Where can we use 3D modeling:

- Advertising and marketing - three-dimensional graphics are indispensable for the presentation of the future product. First we draw and then create a 3D model of the object. Using 3D-modeling for ads is more effective than standard photos or videos.
- Urban planning - cities are beginning to use 3D models to assist with city planning. A prime example of this is Virtual Brisbane. It was a project used by the Brisbane city council to create 3D models for development assessment, community engagement, and strategic planning. These techniques will help integrate people, which creates a more personalized approach to development planning.
- Industry - graphic designers create three-dimensional images of parts and objects to create prototypes of the object
- Production of exclusive jewelry - professionals artists and jewelery, victorious special programs, as well as original and unique programs.
- Computer games, cinematograph - almost every Hollywood film production team uses 3D modeling to speed up production, to reduce costs, and to make interesting 3D effects. For instance, the popular HBO series Game of Thrones uses 3D animation and modeling to mock up everything before filming it.
- 3D Integration to Planning Education - for instance, The University of Queensland launched a project where the researchers brainstorm, design, and implement an efficient curriculum in its Bachelor of Urban and Town Planning program. By making virtual 3D models, students can develop their spatial skills.
- Architecture and interior design - with the help of 3D-modeling technology, the customer can see how his home or office space will look like after repair.
- Real estate services - 3D tours can be very helpful when clients cannot visit a real estate object themselves.
- Medical field - during plastic surgery or surgical intervention, 3D graphics are increasingly used in order to clearly demonstrate to the patient how the procedure will go and what the result will be.

Thanks to 3D modeling, we can see more efforts being made to help improve our society 3D modeling is much more effective than traditional drawings and two-dimensional images of designed products, because it allows you to evaluate in detail the characteristics of the object at the initial stages of work.

Z. Kravchuk

*Research and language supervisor: K. Kugai, senior teacher
Kyiv National University of Technologies and Design*

SMART HOME

Smart home – is a high-tech system. It can integrate and manage all your home communications at the touch of a button. There are a lot of systems which can be controlled with a smart home.

A system of light management allows you program light in your home or make your home presence visible while you are on vacation in another country. The heating control system will easily maintain the temperature in the whole room or in separate rooms. You can low it or

raise it according to the set parameters. For big homes, with panoramic windows and massive blinds, there is also a smart technical solution: you can lie down on your bed and just press a button and your blinds will close. Everything is very easy and simple.

Another important option of the smart home system is the ability to provide safety for children. If a child stays alone at home, parents can lock the front door, unplug groups of sockets, electrical appliances, and thus provide safety to the life of the baby. Again, this is an easy but very effective solution.

Often, when we talk about "smart home", there is a number of associations: expensive, difficult, unreliable. However, these are myths. First, it is not difficult, because modern technologies are moving forward with each passing day and installing a smart home system is not a complicated process. During the repair, the experts plug everything into a common dashboard, and you no longer have to worry about design or safety.

Second, it's not expensive. The experts of the company "Your Theater" give us the fact that the installation of a smart home will later save up to 30% of payment for utilities. As a confirmation, the built-in automatic light control system performs programmed actions only when the person is indoors, and the heating control system when out of your home automatically adjusts to a "minimum" and turns on when you return.

Third, it is safe and secure. The system implements a number of measures for the safety of a user and his protection. No one is safe from dangerous situations, any system in the house is capable of failure, and most often it happens at inappropriate moments: the filter of the ventilation system can get clogged, the water supply system will start to leak, there will be a gas leak. "Smart House" closes the valves immediately and notifies you via smartphone. Simple, convenient, easy and safe. Not only your own home but also your business objects can be made effective and secure. This guarantees both cost savings, safety and efficient living arrangements.

How does the smart home system work? As for lighting, everything is easy here. The central controller receives information about the operation of all devices and systems in the house with the help of special sensors. For example, light sensors transmit information about the level of natural light at a particular point in time. The controller determines if this level is sufficient. If not, a certain number of lights are automatically turned on. In doing so, the system determines whether there are people in specific rooms. And it includes additional lighting only if they are present.

So, a smart home system is a great solution that is able to provide the highest level of comfort and safety for people living in the home. In addition, due to the high degree of automation, the system is able to optimize the cost of resources and provide cost savings, while paying for electricity, gas, water and so on.

D.V. Kurovska

Research supervisor: I.Y. Burlaka, Associated Professor

Language supervisor: I.Y. Burlaka

Kyiv National University of Technologies and Design

USER EXPERIENCE DESIGN

Purpose and assignment: The purpose of this research work is to define what User Experience design is and its role in information technology

To achieve the purpose the following assignments must be done:

- to make a clear definition of term `User Experience design`;
- to find the main features and results of UX designer work.

The object of the research is User Experience design on the information technology field.

Research results. The user interface is human-computer interaction inside websites, mobile applications, software. User Experience design (UX) is the process of manipulating user