
FACILITY SIMULATING SPACE ENVIRONMENT FOR REAL, VIRTUAL REAL AND SIMULATED EXPERIENCE OF SPACE ON EARTH

TECHNICAL FIELD

The present invention relates to a facility in which users and participants enjoy real, virtual real and simulated experience of Space (outer-space) on Earth.

BACKGROUND OF THE INVENTION

Generally, when we think about travelling in Space, some of the most captivating images which come into one's mind are that of an astronaut in a sophisticated space suit, floating and performing some activities inside a space station or space craft, and spacewalking in order to deploy a satellite or other reasons. Space, as a whole, and space travel, in particular, continues to attract widespread public interest and enthusiasm. Although human space travel began half a century ago, only a limited number of individuals, mostly professional astronauts, have been able to embark on space travel and have experienced "living in Space". Apparently, it is still a far-flung dream for common people to venture for space trip or experience "living in Space".

Typically, when an astronaut embarks on a space trip, there are certain unique experiences which he or she acquires. A few such experiences are viz. staying on a space station; viewing space from inside the spacecraft and, particularly, viewing Earth from Space; experiencing the acceleration of a rocket launch; experiencing weightlessness; engaging in extra-vehicular activity (EVA) such as space walk; and engaging in various other activities inside the space station. Nevertheless, the astronauts also perform normal daily activities such as eating, sleeping, exercising, bathing etc. while “living in Space”.

Such space trips are fascinating to the public at large due to the visual perception, movement and hearing sensation associated with it. Due to immense technological advancement in the last decade, it is now possible for individuals, who are not professional astronauts, to undertake space travel and to experience “living in Space”.

Even though an individual, who is not an astronaut, can experience “living in Space” by undertaking space trips, but there are a myriad of factors which act as stumbling blocks in his or her way.

Firstly, space travel is an intrinsically risky activity. Many astronauts have lost their lives in pursuit of space travel. Besides, there are biomedical implications of prolonged exposure to space and planetary environments. The stresses of launch and re-entry are significant as well. In fact, the confinement

inside a relatively small vehicle can challenge the health of even the fittest individual. Hence a space trip involves intense medical testing — both physical and psychological. Tourists traveling to space are held to the same standards as professional astronauts.

Secondly, the costs involved in such a space trip are beyond the means of a common man due to its sheer size. This is a huge factor which affects the common man's desire for such an experience.

Thirdly, the inability to take a companion on such space trips also affects the interests of the individuals.

Therefore, realities such as risks involved, fitness and training requirements, the physical hardship of the trip itself, and the exorbitant price of such trips are all factors that could greatly affect common man's interest in, and thus the demand for, public space travel.

The present invention aims to provide such experiences to a common man what only astronauts have experienced in a risk-free environment and cost-effective manner. As such, the common man who is desirous of experiencing unique, challenging, and fun experiences akin to a space trip is able to experience "living in Space".

SUMMARY OF THE INVENTION

Based on this premise, the inventors sought to bring Space to Earth, through a facility that engages participants in living, eating, sporting and engaging in other activities as one would in outer-space.

§1. Facility General

The facility is an iconic architectural design of a spacecraft and the first of its kind for one to experience Space on Earth. Looking out from any part of the interior of the facility, the participant sees only Space and vastness of the galaxy, akin to the view one sees from a space station or spacecraft in outer-space. Using virtual reality (VR) technologies, the facility takes the participant on a journey to Space and an experience in Space, and engages the participant in living, breathing, eating, sporting and performing other activities as one would in outer-space.

Fig. 1 is a schematic diagram of the arrangement of the amenities of the facility. The facility has a lobby, cabins, activity stations, dining and relaxation stations and event rooms. Each such amenity is connected to the others through corridors.

The outer-space living concept is recurring throughout the entire facility,

whether at the lobby, cabins, activity stations, dining and relaxation stations or event rooms.

§2. Lobby and Crew

The Lobby is the bridge of the spacecraft. The front desk is its cockpit. Members of the crew wear space uniforms, colour-coded to represent his area of duties. The participant's registration at the facility and his navigation within the facility are supported by devices adopting smart technology.

§3. Corridor

Using VR technology, each corridor is designed as spacecraft interior, as outer space or as a planet surface, and thereby designed for the participant to walk or travel through the interior of a spacecraft, outer space, or on a planet's surface.

§4. Cabin and Participants

The facility contains cabins where participants live, stay and sleep. Participants wear cabin suits, colour-coded to identify their positions in the hierarchy of authority, their cabin type and cabin area. Each suit is tagged using smart or other technology to identify the wearer as crew, non-crew participant, or

non-participant (alien).

§5. Activity Stations

The facility is equipped with activity stations for crew and participants to live and experience life in Space, including aspects of trekking and climbing, piloting and landing spacecrafts, gravity-free locomotion (spacewalking), driving, maneuvering and operating space equipments, maneuvering and overcoming challenges and perceived dangers of living in Space, all the while being on Earth. Each activity station simulates the physical environment associated with Space or planets other than Earth, including simulating physical surfaces of other planets and their surrounding temperatures.

§6. Dining and Relaxation Stations & Event Rooms

The facility contains the general and usual amenities for participants to eat, shop and relax, get medical attention and hold events. The outer-space living concept continues to recur in these dining and relaxation stations and event rooms.

§7. Advantageous Effect

In all, the facility brings to the participant the reality of experiencing

Space and living in Space, without leaving Earth, and without the associated risks to health and life, and at relatively affordable costs. The participants are able to experience Space and live in Space solitary, as a family, or in large groups.

BRIEF DESCRIPTION OF THE DRAWING

Figure 1 is a schematic diagram to show the arrangement of the amenities of the facility.

CLAIMS

1. A building comprising an interior that has a unity of design, which has a motif of space and/or of a facility in space.
2. The building of claim 1, wherein the building is a hotel or a recreational facility.
3. The building of claim 1 or 2, wherein the building has an exterior design having an appearance of a spacecraft or a space facility.
4. The building of any one of claims 1 – 3, further comprising imitated windows at places where guests are allowed to access;
wherein all the imitated windows display virtual views of space and/or from a facility in space.
5. The building of any one of claims 1 – 4, further comprising a lobby, bed rooms, a facility or facilities for guests' activity or activities, and a room for dining;
wherein all the lobby, the bed rooms, the facility, and the room for dining have a unity of design of space and/or of a facility in space.
6. The building of claim 5, wherein the lobby has an appearance of a bridge of a spacecraft.

7. The building of claim 5 or 6, wherein the lobby comprises a front desk, which has an appearance of a cockpit of a spacecraft.

8. The building of any one of claims 5 – 7, wherein at least two of the lobby, the bed rooms, the facility, and the room for dining are connected by a corridor; and

wherein the corridor has an interior that has an appearance of an interior of a spacecraft.

9. The building of any one of claims 5 – 8, wherein suits are provided to the guests staying in the bed rooms; and

wherein each suit has a color, which represents a type of the bed room and/or a location of the bed room in which the guest is staying.

10. The building of claim 9, wherein each of the suits comprises a tag, which identifies a role of person wearing the suit.

11. The building of any one of claims 5 – 10, wherein the activity that the facility provides to the guest is selected from the group consisting of trekking and climbing, piloting and landing a spacecraft, gravity-free locomotion, driving, and maneuvering and operating space equipment.