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КАФЕДРА ІНОЗЕМНИХ МОВ  
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ ЦЕНТР

МАТЕРІАЛИ ІХ МІЖВУЗІВСЬКОЇ  
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ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО ЦЕНТРУ  
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## SPACE COLONIZATION. MARS ONE

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**The colonization of Space** is the process of creating human settlements beyond the Earth. Theoretically, the colony can be placed: on the planets, their moons, asteroids; on the orbits of the celestial bodies; in the Lagrange's points. The most popular projects of colonization are the colonization of **Moon** and **Mars**, and the **creation of orbital colonies**.

**Moon** is a promising target for colonization. This is facilitated by the proximity to the Earth, the presence of water ice, the interest from the point of view of research as well as the wealth of minerals. For example, **Helium-3**, which can be used as a resource for fusion reactors. NASA is planning a new project for the development of the Moon in 2018.

**Mars** is the most promising in terms of colonization. Mars has a very strong resemblance to Earth. They are: the distance to the Sun, the surface area, the presence of air and water. However, the greatest interest in Mars is because it already has a program of colonization - the private project **Mars One**. Nowadays it has been selected 100 candidates from more than 100 thousand comers and started their training, made a concrete plan and maintained production of the logistics program. By 2023 rover and modules will arrive to Mars, that will equip the village before the arrival of the colonists. In 2024 the first people will be sent from the Earth and in 2025 they will arrive in Mars. New groups of people and goods will be sent every 2 years. It is interesting, that the return back is not planned. Everything that will happen is planned to broadcast around the clock under the TV.

An important person in the development of projects related to the space colonization, is **Elon Musk**. He is a CEO manager of the company **SpaceX**, which has made the first private flight into the space and continues to work in this direction. The Musk's ultimate aim is Mars colonization and the possibility of private flights in the future. One of the most extravagant projects of the orbital space settlements are so called "**Stanford torus**". The project was proposed in 1975 by students of Stanford University. It is a **torus** ("donut") with a diameter of about 1.8 km, rotating around its axis, creating artificial gravity of 0.9-1 g of the inner portion of the outer ring by a centrifugal force. Sunlight comes inside through a system of mirrors. The interior space of the torus is residential, it is large enough to create an artificial ecosystem.

Unfortunately, the modern technology still fails to make it possible to solve many difficulties associated with such a settlement - for example, to provide the protection from radiation or to provide an ideal functioning of artificial ecosystem.