PATRON OF THE TASK:

SPACE FREE OF WASTE

Elimination of contaminants from space

There are thousands of objects of earthly origin orbiting the Earth's orbit. These are mainly satellites, their remains and elements of carrier rockets, which after depletion of fuel are disconnected from the main transport modules, or even gloves or toolboxes, lost by astronauts during spacewalks.

For decades, the problem of litter in the Earth's orbit, in particular, the so-called low orbit (space between 200 and 2000 km above the surface of the Earth), has been ignored by institutions carrying their equipment out into space. However, scientists informed about the danger. In 1978, Donald Kessler, working for NASA, warned against a scenario (later called Kessler syndrome) in which, if the critical mass of orbital objects is exceeded, a collision of two large satellites may cause a destructive chain reaction.[1]

DESCRIPTION OF THE CHALLENGE

Can you clear space of garbage? How to do it? Your challenge is to design a solution that eliminates the waste that circulates in our orbit.

China, in 2007, disposed of an inactive meteorological satellite with the use of a ballistic missile. The result is several thousand pieces, the size of which allows to monitor them, but also 150 thousand remains too small to be tracked. How to eliminate the smallest parts as well?

PRESENTATION OF THE SOLUTION

While dealing with the problem and preparing your proposal of its solution, focus on such components as

- Project description - what the project is about and what the problem solves,
- Project recipients - to whom the project is directed, e.g. to individual recipients, companies, city or country managers,
- Description of tasks in the project - what are the individual steps to be taken to implement the project,
- Project budget - estimated costs of implementing the solution,
- Team structure - description of team members and their competences and division of tasks.

GOOD LUCK!

[1] https://holistic.news/kosmiczny-smietnik-i-orbitalna-ekologia/