

Sustainable Space Migration in Support of the Earth A Simulation Model Project by The Human Space Program, Inc.

Our Mission: Sustainable, ethical, and inclusive stewardship of the solar ecosystem

The Human Space Program (HSP) is developing a computer simulation model, providing a Large-Scale Space Migration (LSSM) planning platform, to help address Earth's sustainability challenges. In this context, LSSM refers to the significant expansion of human civilization off Earth.

Our world faces pressing issues like overpopulation, resource depletion, climate change, and environmental strains that threaten humanity and our planet's well-being. Ambitious and transformative solutions are needed to fundamentally reshape this unsustainable trajectory.

Building on the influential "Limits to Growth" study, which used systems dynamics modeling to investigate humanity's future, the model will help researchers around the world analyze the potential for Large-Scale Space Migration to, improve life on Earth, incuding:

- Alleviate pressures on Earth's carrying capacity and resources;
- **Mitigate** global climate change, environmental damage, and biodiversity loss;
- **Pioneer** new frontiers for sustainable human habitation beyond our home planet;

The model will also:

- **Investigate** key constraints and high-leverage actions for LSSM;
- **Provide** insights for near-term policy and investments decisions;
- Enable more humans the opportunity to experience the Overview Effect, catalyzing a transformative realization of our interconnected planet and collective duty to safeguard Earth and its inhabitants.

The original Limits to Growth Systems

Population System: The growth and dynamics of the global human population.

Nonrenewable Resources System: Finite resources like fossil fuels, minerals, and metals.

Industrial System: Economic activities, technological advancements, and industrial production.

Pollution System: The environmental consequences of industrial activities.

Food System: Agriculture, land use, and food production.

The HSP simulation expands the original five systems

by modeling the Solarian Ecosystem from the Sun to the Oort Cloud:

Population System: Migration between biospheres.

Nonrenewable Resources System:

The use of asteroid, lunar, or other planetary materials to support all biospheres.

Industrial System: Commerce between biospheres.

Pollution System: It is possible to pollute the Solar System with debris, especially around orbital habitats, and with careless asteroid mining.

Food System: To support life.

TERRA

Population System
Industrial System
Pollution System
Food System
Food System

With your support, we can bring this vital platform to life and inform pivotal decisions about our shared future. Our experienced team is poised to deliver a minimum viable product in 2026 and we need your help to make it happen.

Join us in this visionary effort to understand and shape humanity's path forward. Together, we can create a sustainable, thriving future on Earth and beyond. To get involved or donate to the Human Space Program, please visit us at: www.humanspaceprogram.org





HUMAN SPACE PROGRAM

MISSION

The Human Space Program is a central project to ensure the sustainable, inclusive, and ethical evolution of the Solar Ecosystem.

WHAT

Blueprint Repository

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HOW Simulations 16 Task Forces Secretariat

Board of Directors
Board of Advisors
Inclusion Council

Secretariat

Manages the day to day operations of the Human Space Program including coordination of the 16 Task Forces and the development of the Blueprint.

Blueprint

We are developing a blueprint for the sustainable, inclusive, and ethical exploration and development of the solar ecosystem.

Repository

A focal point for access to, and coordination of, knowledge relevant to all aspects of space exploration and development.

The Inclusion Council

Serves as a special unit of our Board of Advisors. They will present their guidance, ideas, suggestions, feedback, etc. at each quarterly BoA meeting. They will also be expected to contribute to the ongoing programs and the overall evolution of the Human Space Program.

