1st Mission Project Teams

Students will be assigned to one of the following project teams. Each team will be comprised of students from a variety of countries.

_____ **Flight Operations**: This project team works on flight planning, spacecraft design, and planning of living and working on the spacecraft during flight. Plans will include multiple trips to Mars to deliver 25 people, supplies, equipment, robotics, etc. The journeys will take place over the course of 5 years. The project team will focus on method of travel, energy sources, and science experiments. The final outcome will be space transportation vehicle designs and models with a detailed description of the trips and payload for each trip.

_____ **Habitat Planning**: This project team develops detailed plans on how the crew will live and work on Mars. These plans will include living and working quarters, energy production, and manufacturing and production of materials and goods. The final outcome will be a visual model of a first colony on Mars with a detailed description of habitat nodes, as well as preliminary blueprints for future colony growth.

_____ **Resource Management**: This project team develops technology to produce and recycle oxygen, water, and energy. The team also devises innovative solutions to handle waste products. The final outcome will be a detailed description of systems and models of the systems which will produce and recycle the resources.

_____ **Agriculture Production**: This project team develops detailed plans for meeting nutritional needs of crew members and future colonists. These plans will include plant/food production, the packaging/preservation procedures, and equipment/robots necessary to complete the work of this project. The final outcome will include a detailed description and visual model of the processdures necessary to insure that all colonists will have adequate nutritional resources available.

_____ **Terraforming/Atmosphere Restructuring**: This project team develops plans and timelines for transforming the surface and atmosphere of Mars. Plans will include new technologies, time frame and scope of work for continual habitation. The final outcome will be a visual display of climate zones with key technological equipment and a detailed description of the plans.