



LUNATECS

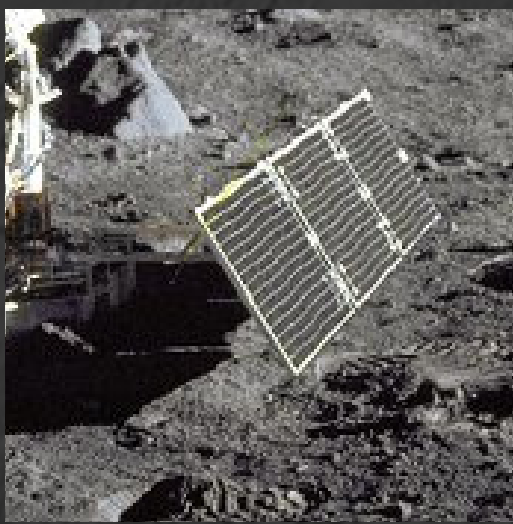
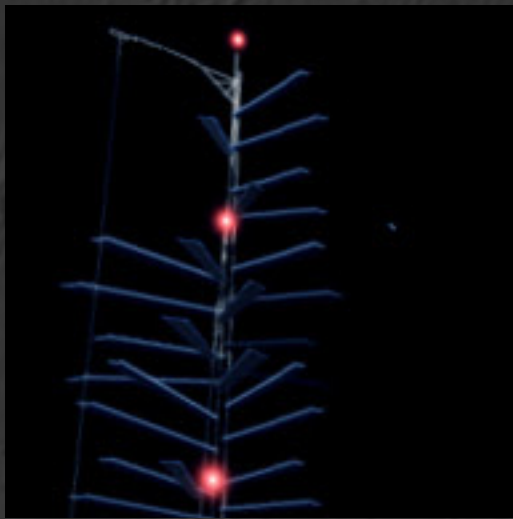
by

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ENGINEERING

Lunatec Base utilizes several tested and few innovative technologies to maintain viable Moon base.



SOLAR PANELS

Most common power source used by space constructions and equipment is solar. For example, Apollo experiments were powered by sun energy.

Lunatec Base is powered by solar panels mounted on high towers, to prolonge period of usability during Moon night. Low gravity of the Moon allows constructions of kilometers high.

MASS DRIVER

Moon's low gravity well allows launching cargo from the Moon almost without rocket fuel.

Lunatec Base uses maglev mass driver for non-passanger launches, due to high G acceleration during launch.

Maglev technology is well understood and in use by high speed bullet trains.



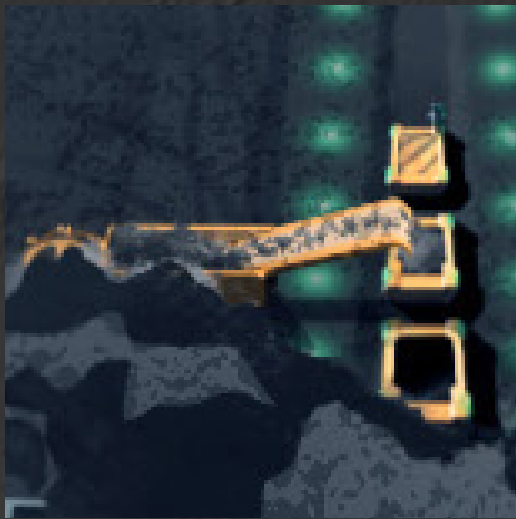
MOON BUGGY

The Lunar Roving Vehicle (LRV) is a battery-powered four-wheeled rover used on the Moon for comutting.

Vehicle is tested on several Apollo missions, where it carried a maximum payload of 490 kg, including two astronauts, equipment, and lunar samples, and was designed for a top speed of about 20 km/h

ECONOMY

Lunatec Base main economic activity is mining and shipping of material used for construction in LEO factories.



MINING

Since it is cheaper to launch 100 kg of cargo from Moon to LEO then from Earth's surface to LEO, Moon is great place to build space industrial complex.

Excavators are excavating material and filling containers that will carry it to LEO. Material will be used in orbital solar panel industry, and for construction of Space Stations.

SCIENCE LAB

Moon is a great place to conduct science experiments, especially astronomic experiments due to lack of man made radio interference and atmosperic distortion during opservations. Similar to Antartica today, Moon could became hub for astronomical reasearch. Low gravity provides opportunity for technology reasearch as well.



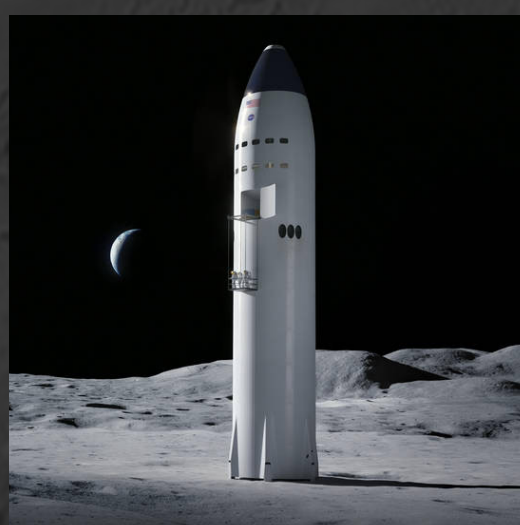
TOURISM

Space tourism is reality since 2001 and Dennis Tito's visit to ISS. Large scale space tourism is developing rapidly by aerospace companies like Blue Origin and Virgin Galactic.

Lunatec base could gain some additional revenue by accomodating wealthy individuals wiling to pay large amount of money to spend a week on the Moon.

ARCHITECTURE

Lunatec Base is built from components shipped from Earth, but also from local materials like aluminium.



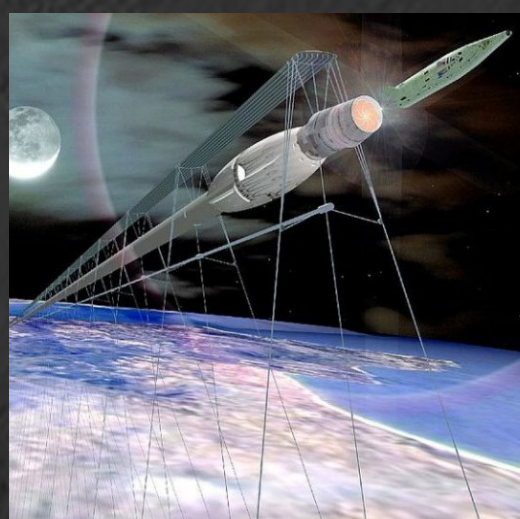
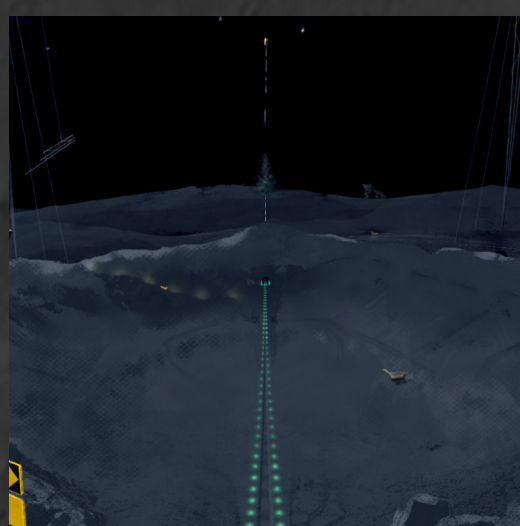
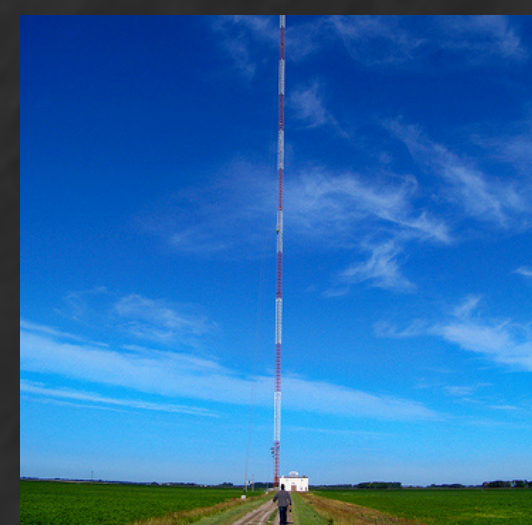
MOONSHIP TOWN

Main architectural component of this settlement are used SpaceX Starships equipped for Moon landings.

SpaceX is one of three companies awarded contract by NASA to develop moon landers. Inflatable habitats are constructed for providing large open spaces used as greenhouse, or for communal spaces.

SOLAR PANEL TOWERS

KVLY-TV mast was the tallest structure in the world until Burj Khalifa exceeded it in 2008. Low gravity allows building of similar but much higher constructions on the Moon. Lunatec Base Towers, used as platforms for solar panels, provide energy to the Moonship Town, mass driver and radio telescopes.



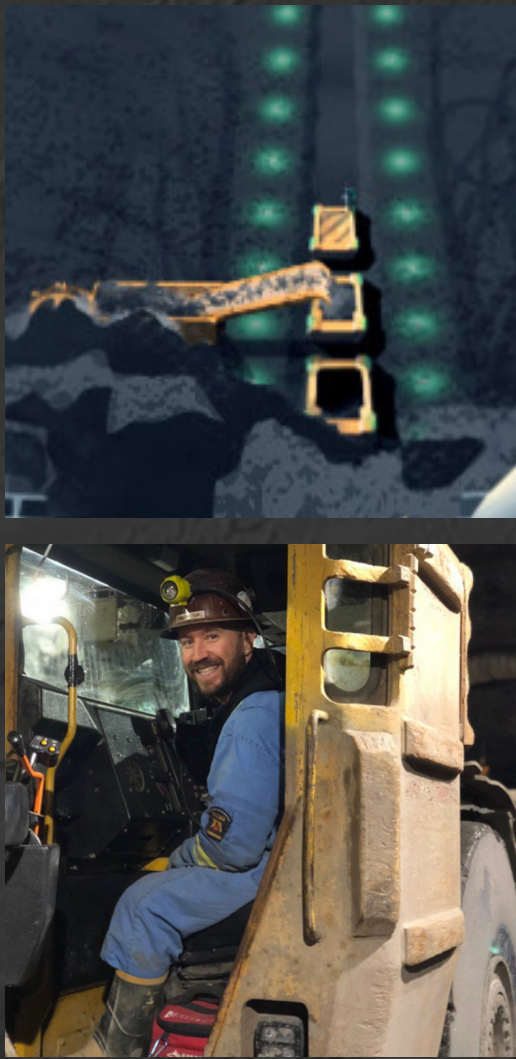
MASS DRIVER

For convenience, Lunatec Base Mass Driver is built mostly within the mining crater. Cargo containers are filled with material while sitting on the ramp ready to be launched towards Earth's orbit.

Similar constructions were proposed for Earth, but atmospheric drag and high Earth gravity make it highly unfeasible.

SOCIETY

Lunatec Base is home to about 30 inhabitants at a time, including engineers, miners, scientists, astronauts, tourists...

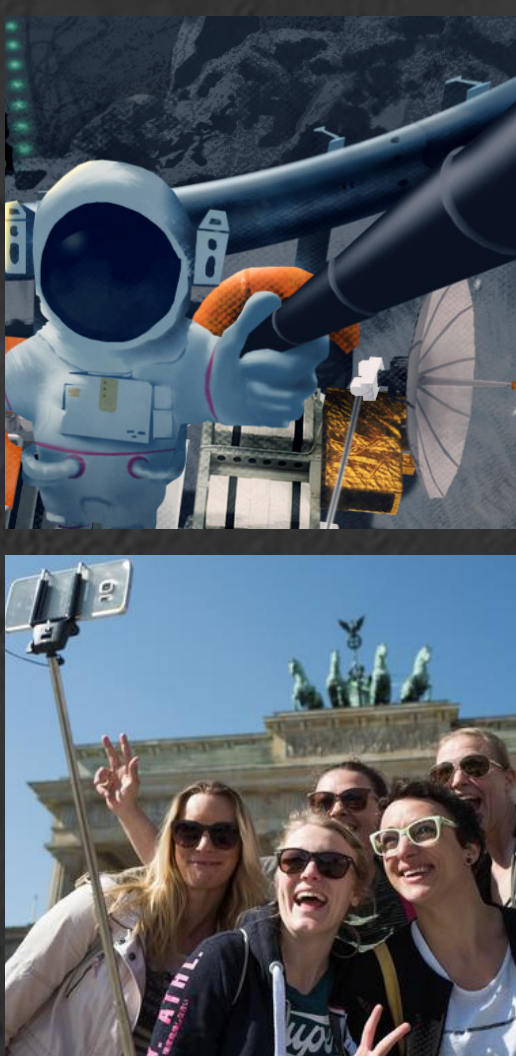


MINERS

Mining is main economic activity of the Lunatec Base and main source of employment. Moon mining is certainly not a boring job, nor for the faint-hearted. Along with hostile environment of the Moon, miners learn how to deal with difficult people. Long rotations away from home, family and friends. Putting up with faulty equipment and waiting for repairs.

SCIENTISTS AND ENGINEERS

Building Moon base is the greatest technical and social challenge in the human history. Being part of the effort to establish stepping stone for the humanity to become space civilisation is the highest motivation of the individuals involved in colonisation of the Moon.

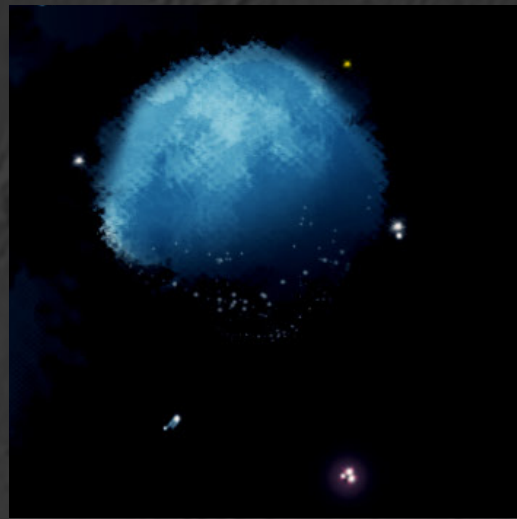


TOURISTS

Although tourists don't make big chunk of the Lunatec Base inhabitants, there is much to experience on the Moon for the lucky few. Mass driver and LB Towers are considered wonders of the Moon. Low gravity sports, moon buggy tours, photo opportunities with Earth hanging in the sky provides adventure of the lifetime and unforgettable experience.

POLITICS

Lunatec Base is part of the international political, economic and cultural space community.



IN EARTH'S ORBIT

Electricity is the clean energy of the future and ecology is dominant ideology.

Moving heavy, polluting industry from Earth's surface is main reason for the Moon mining operations. Orbital factories manufacture solar panels. Orbital power plants provide energy to the Earth. Orbital shipyards assemble spaceships. Orbital Hotels are tourist destinations.

MOONSHIP TOWN MAYOR

Lunatec Base is administrated in the similar manner as the ISS. International community appoints Moonship Town commander, tasked with ensuring the day-to-day safety of the crew, of the base itself, and the efficiency and efficacy of the operations. A MT commander works in partnership with ground control centers and is the final voice in the onboard chain of command.



INHABITANTS

Permanent inhabitation of the moon is prohibited, due to health hazards of prolonged exposure to the low gravity and cosmic radiation. Lunatec Base works with rotating crews, without strict time span for the individual, never exceeding 30 inhabitants in total, always multinational.

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