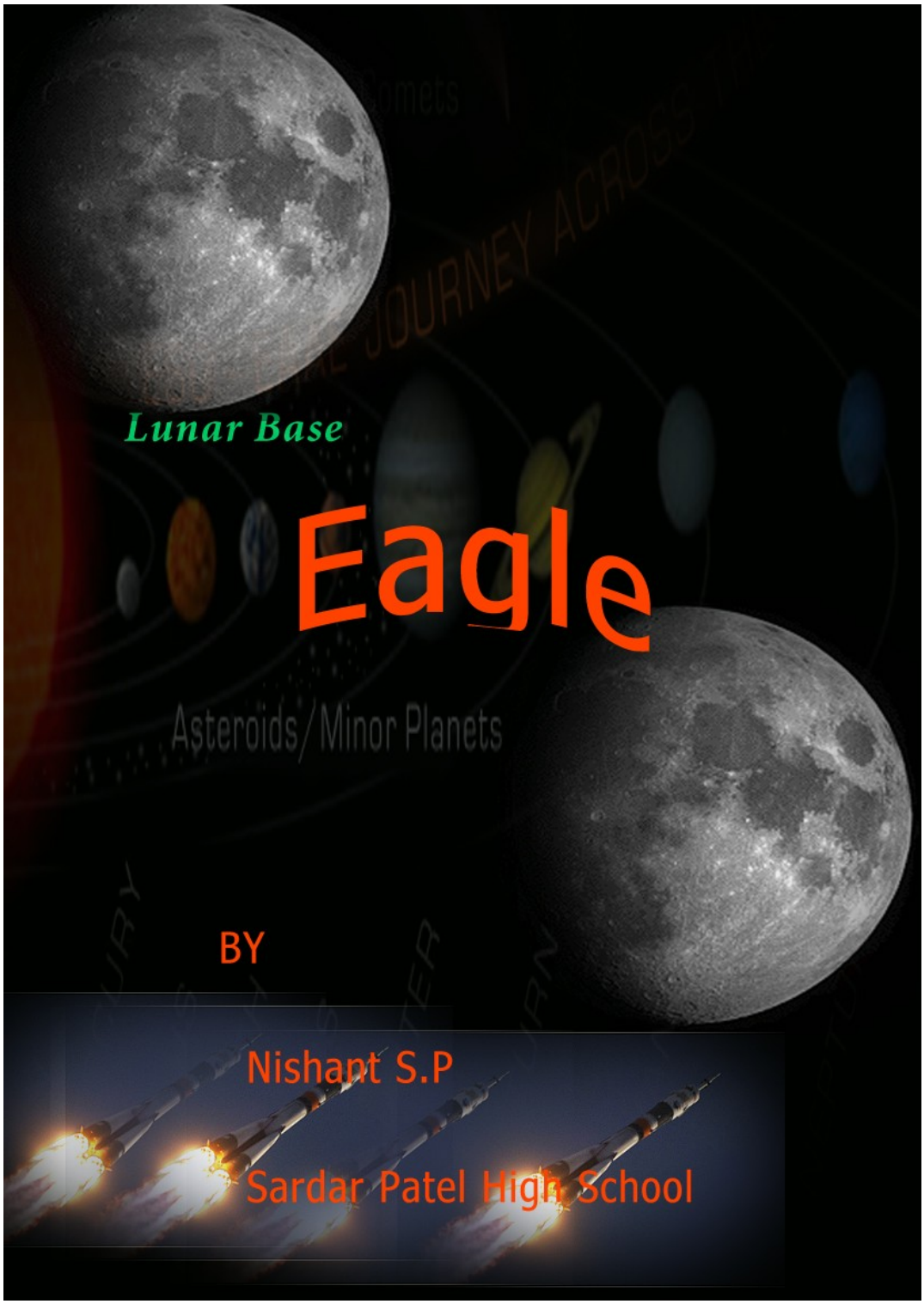
Lunar Base
Eagle
Asteroids/Minor Planets
BY
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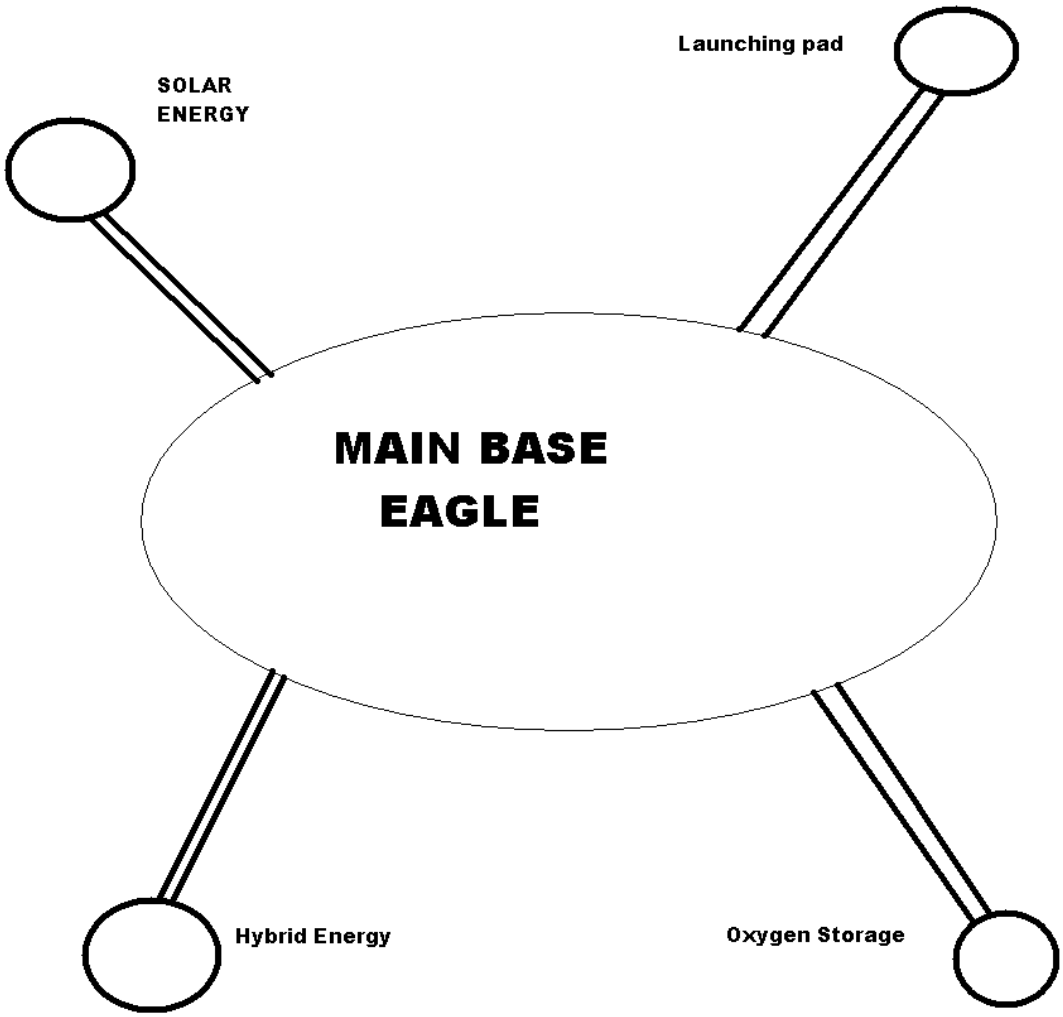
From the dawn of time the mere
glimpse of the moon had made man
wonder his place in space.....Moon had
alwaays been a fantasy to everyone ....
from a small child to an old man.....

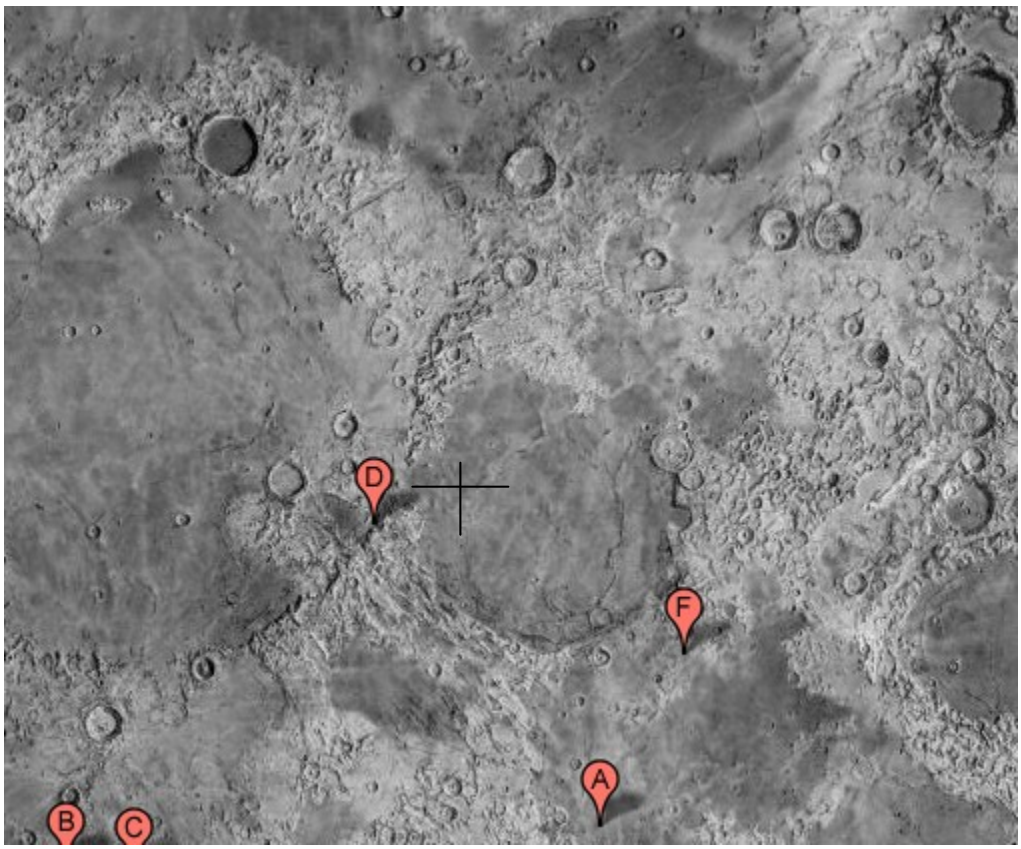
The Moon has always been a source of inspiration for poets, painters, musicians. I have always believed that the universe was created by chance but it exists by circumstance. Hence through this opportunity I have tried to make my humble contribution to the vast ocean of ideas. During the course of this project I have tired my best to make the best use of resources to make a research station on the moon. I hope this would inspire many to come up with better ideas. I hope the base to stand the test of time and remain a monument in history for the future generation. This will make the future generations realize that we a specie born to explore…..to innovate……and most importantly understand our place in space!



Introduction: We had to build a base which could be self sustaining for at least 2 months. So we had to select the right place for the base.

Location: We selected the landing sites of Apollo missions to build the base. There we

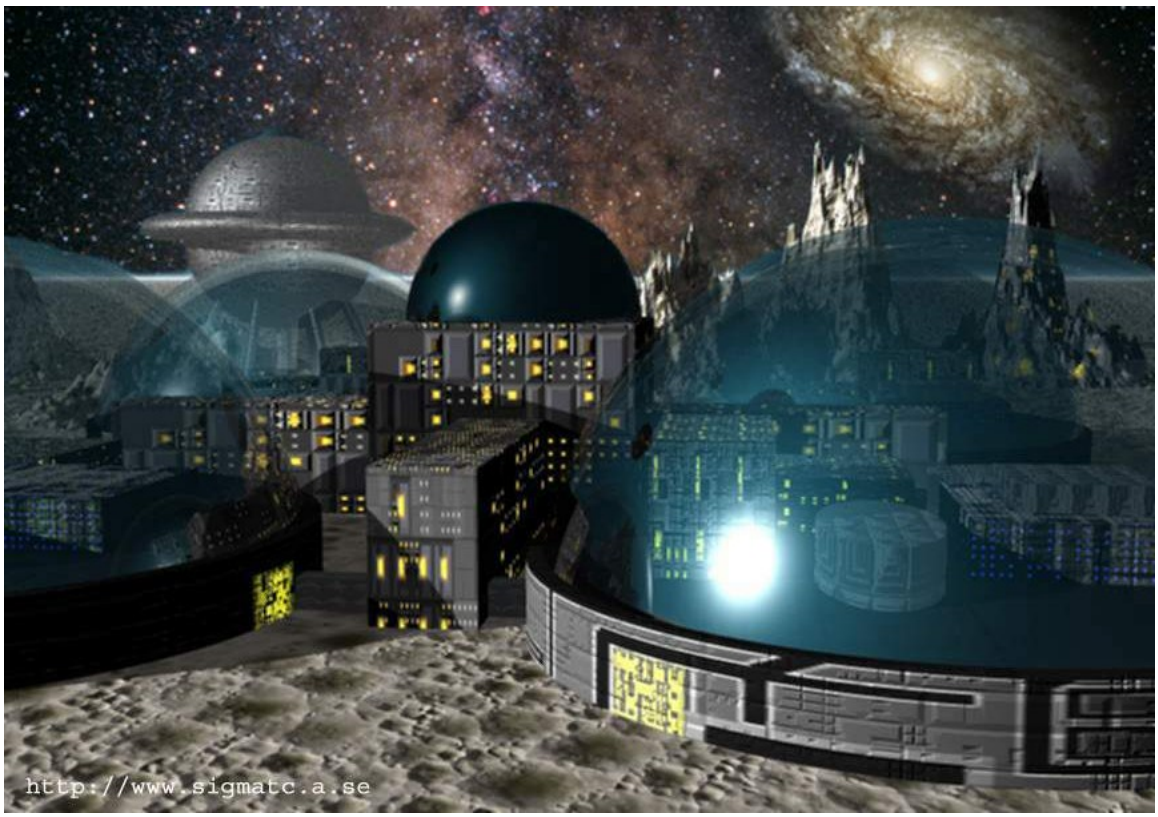
considered the site near to the Apollo 15 landing area to be the most appropriate for the base. We have also planned to build the base underground to escape from the harmful consequences of the sun’s radiation.



The cross represents the location of the base.

Materials used: We plan to send shipments from earth including a digging machine and other equipment required to build the base.

Power Needs: We plan to use solar power to the maximum extent possible by building a hemispherical solar power generation station on the surface.



Representation of the power station

As solar power may not be available all the time we plan to make use of chemical process explained below called the Hybrid process

Hybrid Process: Oxygen from the tanks and carbon dioxide is taken in a closed chamber and made to react with the help of limited electricity. This forms water and at the same time releasing enormous amount of heat energy. This heat energy is used to generate electricity.

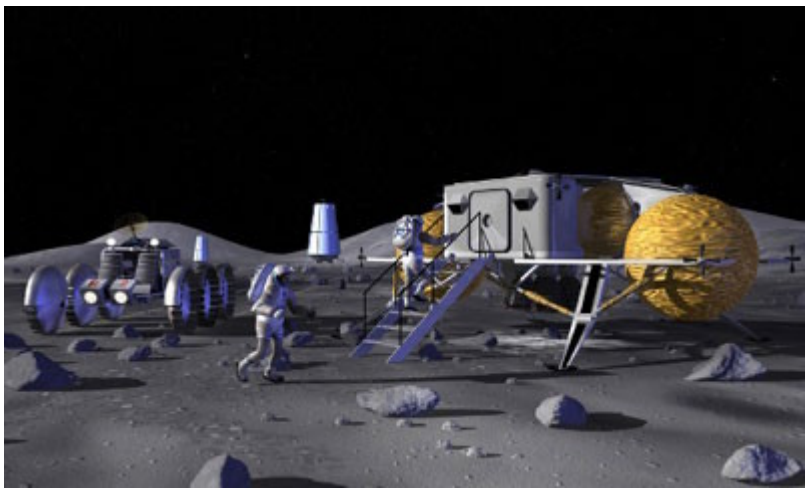
Water: The water generated from the above process can be used for drinking and other domestic purposes. The water formed is devoid of salts, the consumption of that water can only be done by the artificial addition of salts.

This saves a lot of payload in the supply ships and thus saving millions of dollars.

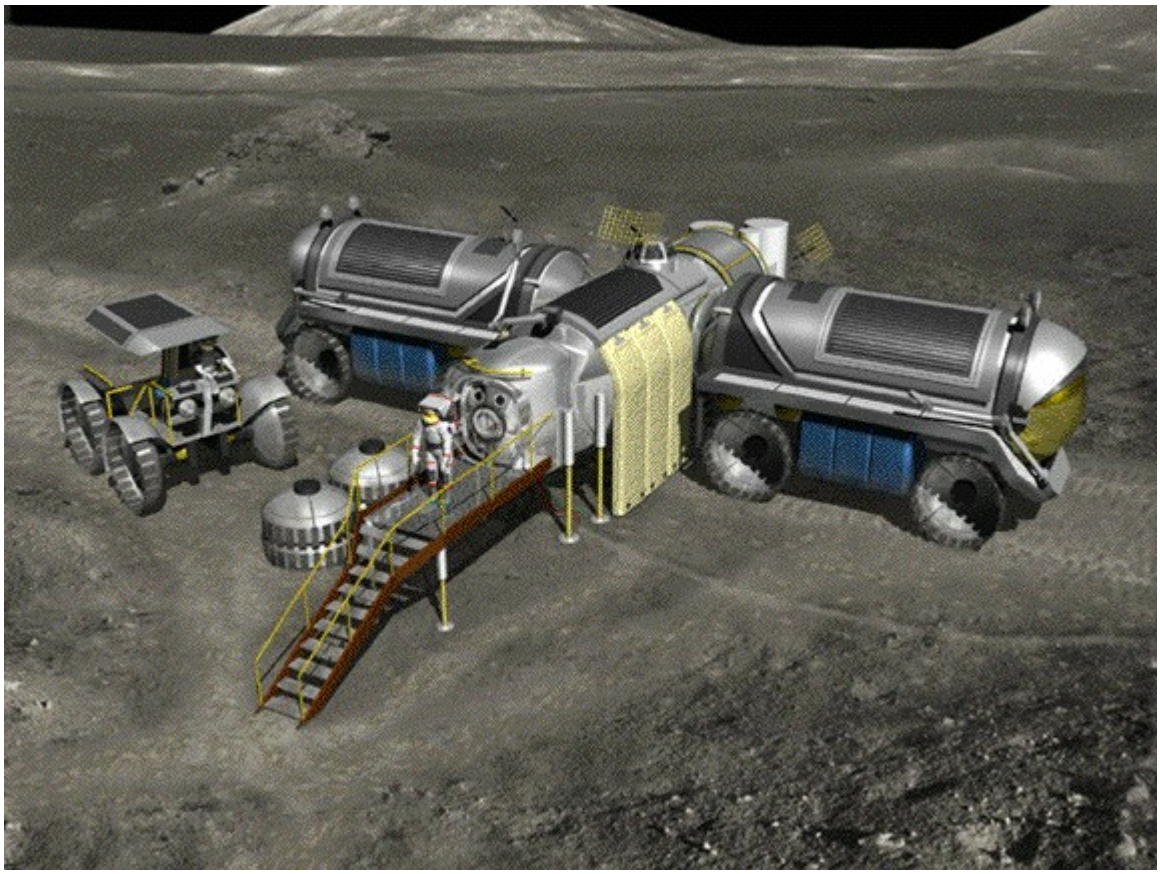
Oxygen: We propose to extract oxygen from the rocks on the moon. If we still fall short of the required oxygen, we suggest importing it from

the earth. We also plan to convert the used carbon dioxide again into oxygen by using photo chemicals. We plan to use the same mechanism seen in the leaves of autotrophic plants.

Crew: We suggest an able crew of twenty to manage the base. As the lack of gravity on the moon has hazardous effects on human health, we suggest the changing of the crew every month. In the same time we can refill the base with the essential supplies.

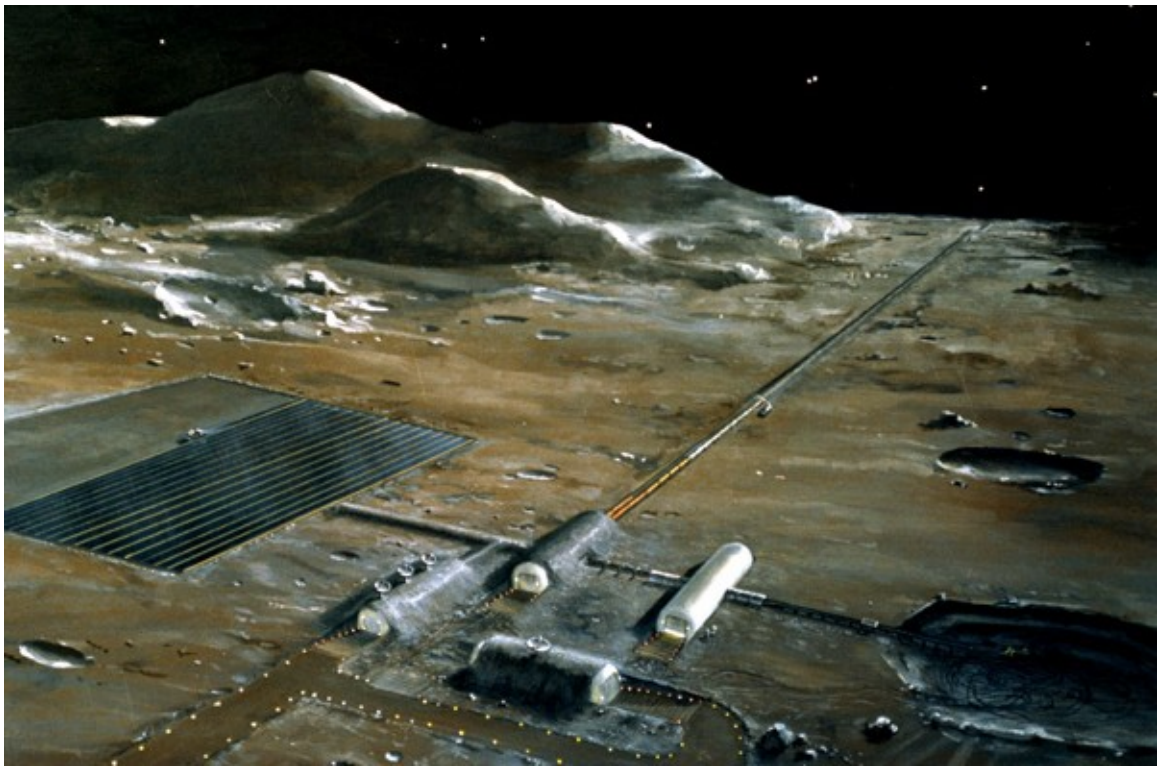


Size of the Base: As this would be the first Lunar Base, It is preferable to start small. I believe that a hemispherical underground of radius 1 mile base with 4 surface stations of radius 200 meters would be appropriate.



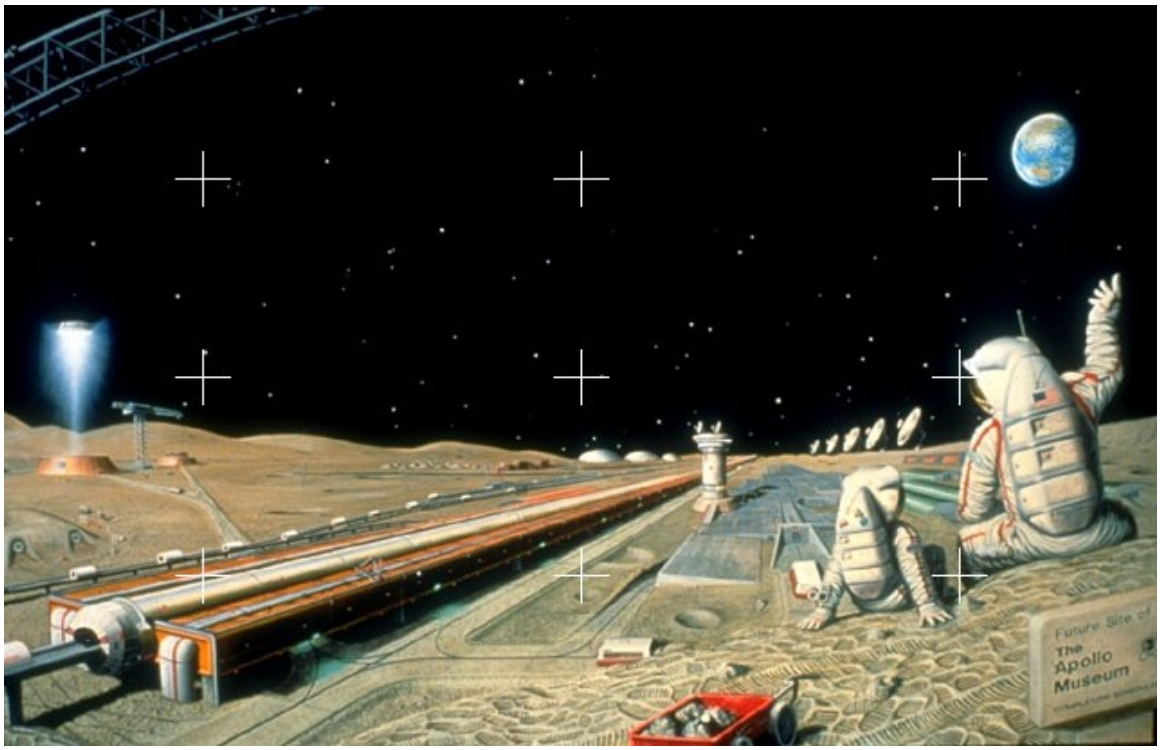
Surface Stations: The surface stations are for the solar energy generation, launching pad, Oxygen tanks and alternate hybrid energy generation.

Space suits: space suits are to be used while outside the base. Arrangements are made to replicate the atmospheric pressure of the earth on the base.



Problems and Solutions: As this is man's first venture into the Beyond…..It is bound to be challenging.

Communication: To maintain a perfect co-ordination among the crew members…….communication becomes very important. So we would propose to use radio kits as it would work even on the moon



Waste removal: We propose recycling to make the best use of available resources.

Attack of Meteors: Due to the absence of atmosphere on the moon….there is a possibility of a meteor hitting the base…..Hence we decided to make the base underground and away from the poles which are always prone to meteors.

With this we have tried our level best to build the plan for the lunar base……..But this is not the end of it…..Instead its just a new beginning……….A lunar base would be a giant leap for mankind……..as Newton once said "We are like children playing on the beach…..happier with every smooth pebble or a hard shell we find……..But the vast ocean of knowledge lay before us undiscovered……."

We sincerely hope that the idea of the lunar base would inspire the next generation of explorers to build something totally new….

From

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Bibliography

Pictures – NASA
Internet

Special Thanks to NASA for providing an opportunity for designing a lunar base and educating us about building bases in space.