

# [S.no around the settlement which gives much security](https://assignbuster.com/sno-around-the-settlement-which-gives-much-security/)

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SCPhysics,   B. EDJaganSir; physicsM. S   PREFACE UTOPIA SETTLEMENTPROJECT BY 1.                 UPANSHU. C                                         VII/A 2.                 HAREEN. CH                                        VII/A 3.                 ABHINAYA.

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D                                           IX/B 7.                 PRANITHAVYA. M                             IX/B  The name which we chose for ourproject is UTOPIA SETTLEMENT. The settlementalso has many advanced features which will be discussed later. Our settlementhas a complete spherical shape . It has many lasers which help in security. Italso has many solar panels around the settlement which gives much security andenergy for our settlement. It also has a docking sector which is in the middleof our settlement.

The settlement also contains some more sectors. 1. Residential sector2. Docking sector3. Agricultural sector4. Water managementsector5. Industrial sector6. Security sector7.

Waste managementsectorThese 7 sectors will be built ina big sphere. Each sector will have its ownstyle.   ACKNOWLEDGEMENTA place with no vegetation, atmosphere, air and noinhabitation is called space. NASA- NationalAeronautics and Space Administration    of U. S. A manages space related programmers ; example : manages satellites, space stations, rockets , rovers etc . Every yearit conducts many programmers  to bringout the talent of students regarding space ; We thank NASA a lot for  giving us such a golden opportunity forproving ourselves.

How a man construct colony in space cans is the key motto ofthe contest NASA AMES SPACE SETTLEMENT. We thank our Principal Jyothirmayee Madam, Dean Ravi KiranSir, Academic Dean Naveen Sir, Physics Jagan Sir, Computer Expert Mahalaxmi Madam.  WHAT IS  A SPACESETTLEMENT? A Space settlementis nothing but making a space colony on orbit of a planet for human beings tolive in. The earth is insufficient for the growing population so, some people must be sent to this settlement . Global warming and green houseeffect may be other reasons for construction of this settlement. LOCATIONThelocation of our settlement is in the orbit of Mars. Mars has climate which issimilar to that of earth . so formation of climate is possible in thissettlement.

We selected mars orbit because it contains water in frozen state. So in our point of view mars orbit is the best place for constructing thesettlement. STRUCTURECompared to earthspace has more pressure.

So to bare the pressure we need a curved shape. Spherehas more curved surface than any other shape. So we planned to make thesettlement in a spherical shape. Sphere can sustain much pressure because ofits curvature. Sphere has many lines of symmetry so it is suitable for space.

For the production of artificial gravity (centrifugal force) an object needs tobe rotated. Sphere can be rotated easily. SIDEVIEW TOP VIEWBOTTOM VIEWDEFENCE MATERIALS REQUIREDALUMINIUMPOTASSIUMTITANIUM Aluminum andtitanium can be used for metal required construction. Potassium can be used forinsulation and air tight.         PHASES PHASE-1: Constructing the sphere.      PHASE-2:  Makethe sphere move in the orbit.         PHASE-3:   constructing the inner colony. SYMMETRY Symmetry isrequired for the objects in space.

Our settlement has an infinite lines ofsymmetry . We can draw a line of symmetry in any direction.     TIME PERIODPHASE-1    Itmust take less than 2 years. PHASE-2    Ittakes approximately 5 to 6 days. PHASE-3    Ittakes approximately 8 to 9 years.  ARTIFICIAL GRAVITY Centrifugal forceis being used in the project because we are going to constructing the settlementin a sphere. Sphere can be rotated easily and it has evenly distributed surfacearea.

The formula which is used is. Area of circle which we have decided is 2650000 m32886m3= 94. 84     THRUSTERS Thrusters are veryuseful for us to move the settlement in the space. The settlement has to be movedbecause it should not crash with the mars.   USAGE OF SETTLEMENT1.  Residential:- 40%×2650000= 40/100 ×2650000 = 1060000m3         2. Agriculture:- 30%×2650000= 30/100×2650000= 795000m33.

Water storage:- 15%×2650000= 15/100×265000= 397500m34. Industries:- 3%×2650000= 3/100×2650000= 795000m35. Waste management:- 5%×2650000= 5/100×2650000= 132500m36.

Security:-5%×2650000= 5/100×2650000= 132500m3 7.  Docking:-2%×2650000= 2/100×2650000= 53000m3   INTERIOR DESIGNThere are 6 sectorsdivided into residencies, agriculture, waste recycling, water storage, securityand industries.      DOCKINGDocking is the veryimportant sector in our settlement. The docking sector will be in the middle ofthe settlement because it has to control the whole settlement.

RESIDENCIESThere are villas, houses and normal apartments. There are 1 BHK, 2BHK, 3BHK, apartments. 2 BHKhouses are 1111sqfts, 1BHK houses are 1000sqft, and 3BHK houses are 12000sqfts.

There are large rooms. People can live happily.    AGRICULTUREAgriculture isimportant for human beings to survive. It provides usfood.

Food is essential to lead a life. Plants are planted in soil brought fromearth. The water recycled in the wastage unit is supplied by pipes. The manurefrom recycling section is also used. The plants require sunlight forphotosynthesis. The sunlight is prepared artificially with the neon light. Neonlight is prepared by the tube lights.        WATER STORAGE Water is theessential thing for a living organism.

Our project gets water from the mooncraters, asteroids and neutralization. Drinking water is obtained by reverseosmosis purifiers. The water is recycled in waste management.  INDUSTRIES Industries are thebeing used extensively used in the earth. In our settlement we have used someindustries in our settlement. The industries which we use should be verymodern.

There are approximately 7 to 8 industries in our settlement. We have touse very less industries as we have to use many people in the settlement. Theindustries are used for clothing, food manufacturing, etc.   SECURITY  Robots have metalscanners which can scan from far away distances.

It can also fire bullets incase of emergency.   WASTE MANAGEMENT Liquid waste ispurified in the waste management sector. It uses the process which is used inearth. The liquid is then again purified by reverse osmosis purifiers. Solidwaste is made into manure and used in the agricultural sector.

Metal andplastic waste is recycled. FIRE PROTECTIONAs water is less inthe settlement we used the fire extinguisher in the settlement. The robots inour settlement have fire extinguishers co2 tanks in their mouth sothat in emergency they can use it very rapidly. Carbon dioxide is used toextinguish electric fires.  ELECTRICITYPower is the main source of energy in the settlement. To getpower in bikes, trucks and cars we use solar energy. Solar energy is usedbecause there is direct contact with Solar energy is usedbecause there is direct contact with thesun.

TRANSPORTThere are bikes and cars operated by battery. To reducepollution there is no use of fuel consumption.       HOSPITALS The hospitals inthe settlement are very modern.

There are robots which will operate thepatients. The inside of the hospitals are also very modern.  COOKINGWe will useinduction stoves, ovens, cookers, etc.

we will use this because to reduce fireaccidents. In our settlement we decided to reduce the fire accidents. So wethought to use these fire free devices.     DEFENCEIn space defense isthe main problem. As meteorites and asteroids keep on moving. There is a chanceto be hit by the asteroids and meteorites. So, we have lasers to shootasteroids and protect our settlement. EDUCATIONEducation helps thepeople to become wise and smart.

It also helps the people to achieve their goals. Education in the settlement is very unique and different. The robots help theteachers to teach and students to understand well and learn very easily.

LIFE STYLELife style of the settlement isalso very unique. They wear modern clothes. They also use digital clothes. Theclothes are manufacture in the industries.

PRODUCING OXYGENProductionof oxygen is a tough task. It is prepared from the electrolysis and some formulas. Those formulas are, H2O (l)? H2 (g) + 1/2 O2 (g)CO2 (g)? CO (g) + 1/2 O­2 (g)2CO2 (g)? 2CO (g) + O2 (g)CO2 (g)+2H2 (g) ? CH4 (g) + O2 (g)FORMULAFOR ELECTROLOSIS:-2H2O ? 2H2 + O­2The oxygen used up byhumans is converted into carbon dioxide. The carbon dioxide is used by theplants in the process of photosynthesis. In the process we will also obtainoxygen. Like this the oxygen and carbon dioxide are reused every time.

FORMATION OF WATERWater is the essential compoundrequired for living organism. Water is prepared from the breakage of asteroidsand a large amount of water is obtained by the mars as it contains large amountof frozen water. There are also some formulas, CO2 (g)+ 4H2O (g) ? CH4 (g) +2H2O (g) + Energy2H2O (g)? 2H2O (l)CO2 (g)+ 2H2 (g) + Energy ? CH4 (g) + O2 (g)CH4 (g)+ 2O2 ? CO2 (g) + 2H2O (g)CO2 (g)+ H2 (g) ? CO (g) + H2O (g)CO2 + 2H2? CO + H2OThe water is then recycledand cleaned. Drinking water is obtained by R.

O purifiers. ASSEMBLYThelegestrative assembly or the government is much important for us. The use ofgovernment is to ensure the correct ruling in the settlement. There is asupreme court in the residencies sector. The Supreme Court has all the powersin its hand.

It ensures the main and big problems of the people. There is alsoa normal court which solves the problems which the police cannot solve. Aperson can go to the normal court without any resections, but cannot go intothe Supreme Court. The police are very strict in the settlement. They checkeach and every person who comes into the settlement.    BUSINESSBusinessis the main source of income for people. Business man can establish theircompany in the residential sector. The business men who want to do mostimportant industrialization can take the permission from the Supreme Court andcan establish their company.

The people who cannot effort establishing acompany can work in the company of other people.    ECONOMICS Economicsin our settlement is very different. We use a cashless and digital way to dotransactions. There is no chance of accepting money. If a police finds money inany citizens home he has a right to cease the currency.

POPULATION OF SETTLEMENT In our settlement we choose a maximum value of 50, 000 people. The people canincrease and decrease up to 200-300. The visitors who come will have separaterooms. They are allowed for a small time.       BIBLIOGRAPHY All images are takenfrom” GOOGLE”.

The pictures of settlement are designed by our own.