

The topic: Near-space near you

Our mission is to develop a lesson plan and bill of materials which teach students how to build a low-cost high-altitude balloon capable of reaching near-space.

And we want to build a low-cost high-altitude balloon for this we need to make a research about how much, a normal helium balloon can reach they can go up to 9,000 meter or 29,537 feet but when balloons get higher than this altitude they will pop. It is because of the unbalanced pressure, of space and the pressure in balloon. When we go up the spaces pressure will get about $1.322 \times 10^{-11} \text{Pa}$ and the pressure in a normal balloon is like 810mmHg-950mmHg. In my project we want to balance them until balloon pops or its helium runs out and reach the max height. For this we will take a big helium balloon and we will make some holes but not big it should be really tiny that when you inflate the balloon it shouldn't run out of air and the balloon will be surrounded by a light and don't let helium pass (like plastic rubber mixture) belt that fits balloon from the holes but the balloon starts to grow because when it gets higher the innerpressure becomes more so it starts to grow. The is belt that holds balloon from places that holes are. The belt stuck to balloon but it has gaps on holes so when balloon expands it stick to the diameter of balloon but it do not lets to expand crazy. It holds in a shape because of that the balloon will fold right holes and the helium will release air till it balances pressure, more altitude it gains it levels more pressure. Until it stops at a point because when it can not lift it self in height its latest balance it have the power to fly at last stop but we have another part that stops it to fly unknown in this part we use funguses and some food that the balloon can lift and funguses will replace helium with CO₂ so will not crash land we use the funguses are living creatures and they respiratory so it can make CO₂ gas and because it is lighter than air it will not crash-land and we will use a type of a fungus that makes CO₂ faster than a normal fungus. For example. The balloon goes up for 30 minutes it stops and comes down slowly it is because of the funguses they replaced helium with CO₂ while it comes down if we upgrade this project it can do research with devices. Basicly the thing that we spoke about is just a theory that we do not even know if it works but it is cheap and in theory, affective. Thanks for reading this article.

TEAM: GO UP !

