

The project: The integration of sense

Inspiration and description

At Santa Monica beach, California. It is a beautiful beach being full of people. There should be some fabulous landmark which is not only can attractive visitors but also generate energy and produce purified water.

It's said that the age of energy shortage is coming, and there will be no more energy because of running out of fossil fuel. On the other hand, there are lots of sustainable energy in this world. It depends on how people harvest them from the environment. It is simple like what people usually see when they come to visit Santa Monica. Power from the sun that can make them a tan skin. The wind that can blow all moisturizer from the human's skin. The one meter high and powerful wave which can cause the beach erosion. Even the light from the moon can also generate energy if a proper device is provided.

All simple way to generate power is the inspiration for "The integration of sense" project. It aims to be a prototype of self-working landmark which not only generates power and produces drinking water. The integration of sense is designed into 2 main structures which can also divide into different working parts called "station".

The first structure is called "The core" It is designed to generate electrical energy by various kinds of energy divided into four stations.

The First station: Motivational station is located on the top of the core which can receive full sunlight during the day and light from the moon during the night. It uses the technology called "Battery Crystal Ball" This technology is pioneered by André Broessel, a German architect and this technology also won in the world technology network 2013. The ball is used for harvesting the power from the sun and the moon, by collecting the light on the silica amorphous solar panels which can track the sun automatically. Since we try to improve the efficiency try to limit energy lost, the thermoelectric is added behind the solar panel the all heat will be transferred to water box and cooled down by the cooling system. This station can generate maximum power at 7 kW per day. However, there are five of these stations so we can generate about 35 kW per day.

2nd station: Big heart station. This station uses the kinetic energy from the wave in order to generate power. This technology is invented by The Wave star company, Denmark. The station uses different amplitude of each wave to move the hydraulic bar. Then the bar will generate energy about 40 kW per hour. Therefore the process which is like rinsing and lowering the pressure same to the heart so it is called Big heart station. At night this station will show the light of each time by the push and pull step of the bar in order that visitor can feel to the power of sea energy.

3rd station: Sensitive station. This station uses the wind belt technology to generate power. The thin crystal plates are used to make a wind belt. While the wind moves through the belt, pieces of magnet will move up and down pass the coil and generate the energy with induction voltage theory. Since the way to generate energy is very simple and easy to be stimulated by the wind, so it is named sensitive station. At night, it can perform a fantastic show of light. The belt is transparent so the light is shined from LED above and the color will change by the hit belt. It will be like light of wind energy from the nature.

The second structure is called "The life" This structure is design to produce the purified water by reverse osmosis proccession. There are 4 different size of The life but there are all the same function and mostly same materials.