**Hexalife**

Hexalife is a path that gives electricity, ventilation, conditioning, reduced humidity and suitable environment for new plants that never had the chance to live in Abu-Dabi naturally, as well as beauty while everything enclouding us is a part.

The design:

Everything in life count on everything basically we can’t live without the plants so I thought that it will be the concept of the project duo to its benefits, the hexagon is a cell wall of plant that have plenty of advantages like functionality, formation, harmony, and beauty.

The function:

* The path as a whole is an integrated system from bottom to the top
* Starting with the Ceiling, it is made of solar panels that use a transparent recycled plastic instead of glass. This will give the opportunity to reduce the plastic pollution and take the advantages of this product… (recycled plastic only)

* The ceiling detailed unit.

1-Sun panels that use the sun to generate electricity with circular movement.

2- system that use the magnetic field to generate electricity using the heat of sun:

This system is a pipes full of helium gas from a side and magnet that make a close system and a metal coil around a glass pipe that is full of (407C gas : this gas is alternative for freon which is harmful on the ozone ) when the pipes heat the helium will expand and push the magnet throw the coil and the magnet compress the 407c gas in the other side of the pipe using a rubber head , the compressed gas will become cold and cool the surrounding area. This whole movement will cause the three solar panels that lays on the top to rotate by mechanical method and this will cover the heated pipes and start this new loop with the other pipes that lays on the hexagon.

3- this ventilation and conditioning systems will cool the area beneath the path which will allow many new kinds of plants that can’t live in Abu-Dabi’s environment in open spaces and make the area suitable for many activities such as walking and seating as will as playing.

* The entrances and the exits flooring generate electricity by steps (every one will be a part of generating the city’s electricity)
* The calculation:

1 – the solar panels will provide: 8.8 MWH

2- the magnetic field will provide: 2.4 MWH

4- the humidity will be reduced to 45% and will provide 21 Liter of water per hour

5- The conditioning system will provide 1.65 WT of cool air

6- the floor electricity generator provide : 0.50 MWH

Some of the material that is used

|  |  |
| --- | --- |
| System | Material |
| Solar panels | Recycled plastic for the face |
| Magnetic field | Helium gas |
| Condition | 407C freon gas |