DISC-Qr7

* Project narrative

Decided to be known as the disc. A disc has no exit or entry, and its form has no boundaries. It is a flat circular shape. We assume the disk is an unlimited use object, to why we are able to place it anywhere. As a result, from a very basic idea, we arrive at the general use of a circulate non-limited movement. We assign the disk a purpose and some features. This disc is distributed randomly around the area. The second characteristic, height, is provided once they are established being in a location. Some discs are up to 4 or 5 meters above ground zero. By doing this, we have given everyone access to a second route. This approach will have two levels, focusing on one while also developing a second one to serve several purposes. Each disk is connected to the others via paths that cross them; when all of these paths come together in the centre of them, a minivers is generated. a newer location with numerous of attractions for everyone

* Design concept

Supporting human culture and activity is a priority for DISC Qr7 . our main goal is to provide more than a field of just renewable energy, but also a attractive landscape, with flowers tree many gardens and many environments for events .This will contribute to the city of Mannheim with a renewable energy park .This park will provide three renewable energy areas. The distribution was done according to the metrological data survey. This park will be an outbreak from the old fashion thoughts of how a park should look or be like, there is nothing wrong in preserving the past methods o design. But as we had more to the future, new ways, forms , and shapes must used more into designing public areas , multifunctional parks .

* Technology

The technology distributed in the park is located in the centre of each disc. All discs are connected with each other through paths, Piezoelectric plates are positioned beneath the routes that are on the soil. Charging pads set under the paths collect energy from the vibration of pedestrian and other movements, microscopic crystals embedded in the charging pads give off an electric charge when agitated. magnets amplify this and then channel it to the batteries. piezoelectric charging panels channel energy to lithium ion batteries which then pipe energy to street lights, and others electronic devices located in the park, or even in the houses located near the park.

But not just that , in the centre section of the park , VAWT vertical Axis wind turbine will be located, who are also known as -Qr7 UNITY . The energy harvested from the turbine will offset the installation cost, as well as provide virtually free energy for years.Qr7 is made in an orange shade advanced composite materials including carbon fibre for weight, reduction, stiffness and longevity. It is divided in a number of helix together that when in motion they spin regenerating energy . In stand of a single line helix , there is the whole body as a helix , the whole body is a one turbine generating energy and sending it to the centre where the generator is ,furthermore in the underground there will be the gearbox , with easy access .Standing 6 meters high and 3 meters wide ,this turbine is rated for150 MWh annually .Qr7 is a new design in the field of VAWT and offering more improved power generation

The qr5 turbine, rated for 6.5 kW, measures 3.1 meters (10 feet) in diameter and 5.5 meters (18 feet) high , This turbine will be located in the centre of the disc , where it will not stand alone , benches placed not far away from it .In some parts both the turbine and the disc will be the same height , but in others the red disc path will be located in the ground level. The advantages of this turbine is that the Gearbox replacement and maintenance are simpler and more efficient, because the gearbox is accessible at ground level instead of requiring the operator work hundreds of feet in the air , not only that VAWT can operate in slow wind ground, with no danger for the bird and reduced noise .

* Materials dimensions

The disc it is located everywhere and it can be up found in different size also . the width can go from 10 to 20 meters for the outer circle. The goal is to use plain materials to make these structures easy to produce. The paths in the park are 3 to 5 meters width , giving access to anyone, and also take into advantage the wide range of the territory that we have .The red paths are different shade of materials and texture , some gravel and some even metal .The high rise metal disc are made of layers of cement .Metal adds an industrial quality to the body and provides enough strength so that it can be climbed without the worry of the structure breaking .The wind turbine use of carbon fibber allows simpler designs that use less raw material. The chief manufacturing process in blade fabrication is the layering of plies. Thinner blades allow reducing the number of layers and so the labor, and in some cases, equate to the cost of labor for glass fibber blades

* Supported activities

The disc being not just having a sculpture placement role but also a way of interfering with the park , connecting and giving it purpose to support social activities such as

* Community garden: placed in the MINIVERSE
* Educational events: place for education and workshops
* Meeting place - where you can sit, relax or ride a bike , or do sports
* Yoga and meditation circular gardens distributed all over the park .
* Environmental impact

The disc is a minimal formation , providing a wide range of access , entertainment and beauty . The renewable energy accumulated will keep the park running as well a the community around it . The disc has no carbon pollution as it is all renewable green energy . The disk QR7 is design to blend with the nature , to not disturb the wildlife ,and most importantly to have a new vision for the future