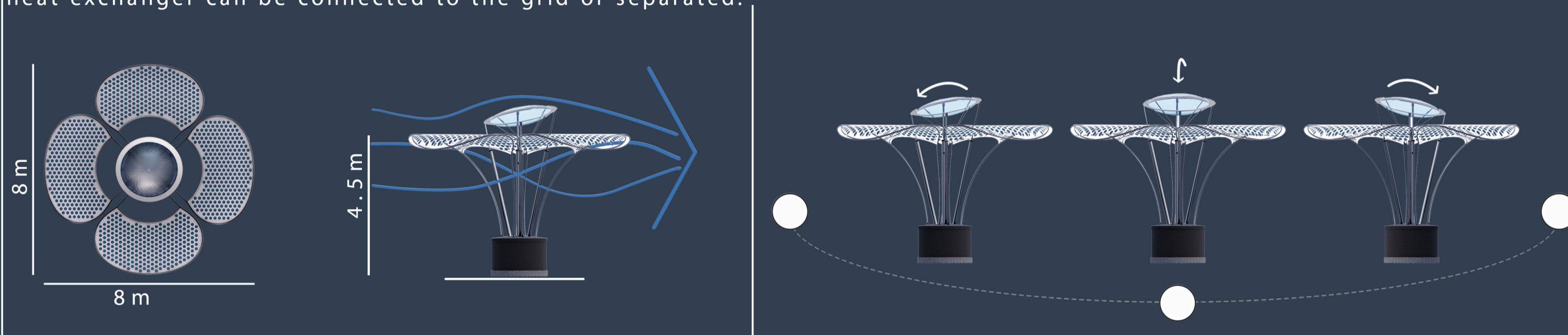
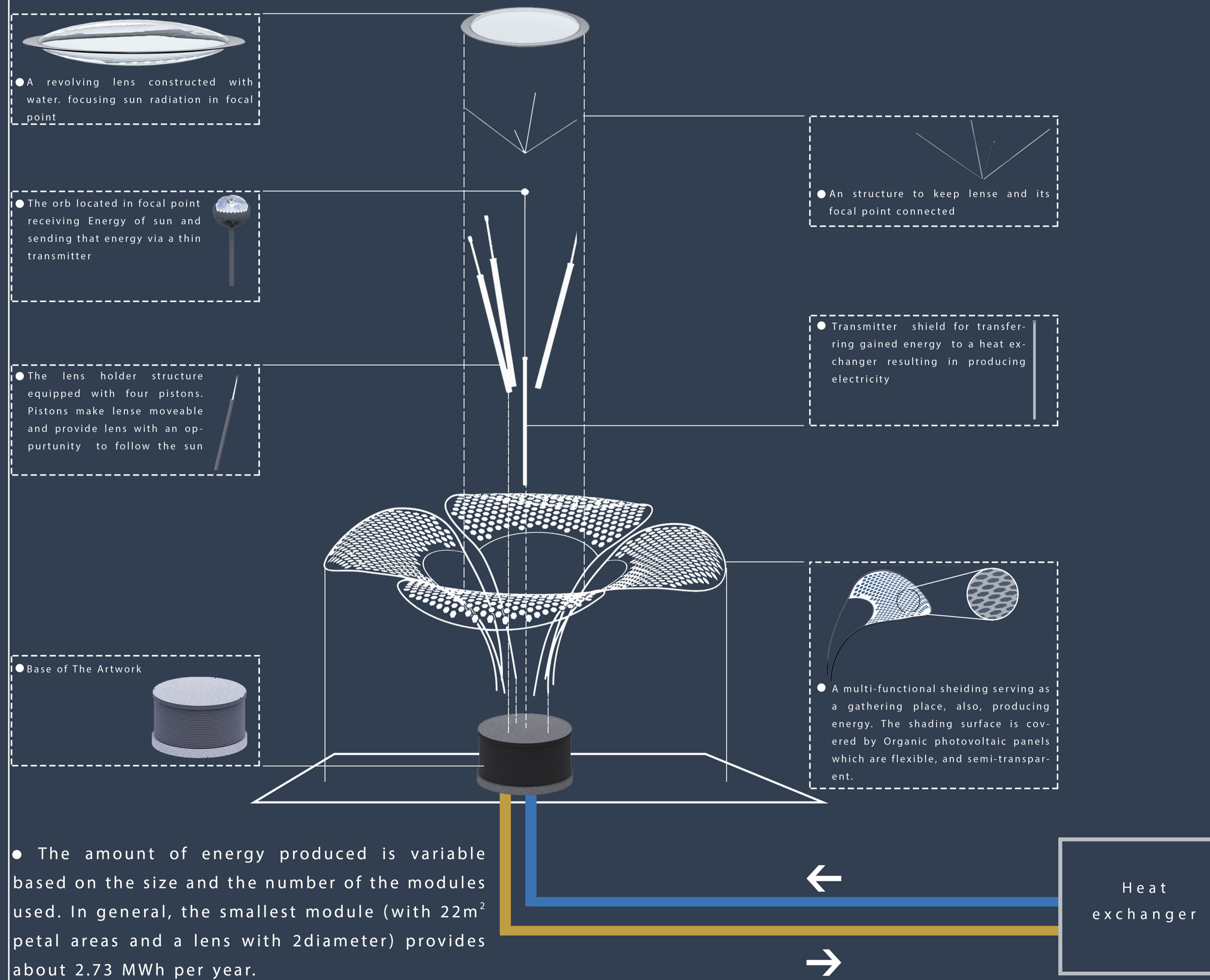


# LAGI 2022

The module of the design is like a flower, the middle part of the flower is made of a revolving lens (following the sunlight) to collect sunlight in focal point and use its heat to generate electricity, and organic photovoltaics (OPV) is used for the leaves to produce electricity as well. OPV is flexible, colored or semi-transparent, and made up of organic materials which are completely suitable for the design of curved shadings. Also, a concave lens has been used for the middle part of the flower by gluing together two curved transparent plexiglass sheets, and filling the space between these two sheets with water. The reason for using water is to reduce the cost of making a lens, the availability of water, and also from a physical point of view, due to its magnifying feature. As a result, the collected heat in focal point is transferred to another material and its heat is used for generating electricity. The system to which this heat is transferred, is a heat exchanger to produce electricity. The heat exchanger can be connected to the grid or separated.



## Exploded Diagram



● The amount of energy produced is variable based on the size and the number of the modules used. In general, the smallest module (with 22m<sup>2</sup> petal areas and a lens with 2 diameter) provides about 2.73 MWh per year.



The module can be used in different sizes and various areas such as Kleingartens, parks, and private areas providing people with enjoyable, multifunctional area.



Mannheim Park