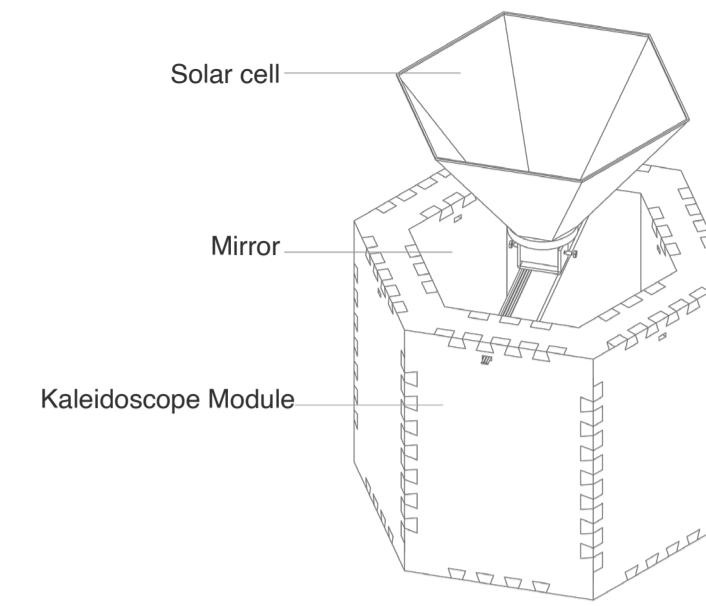


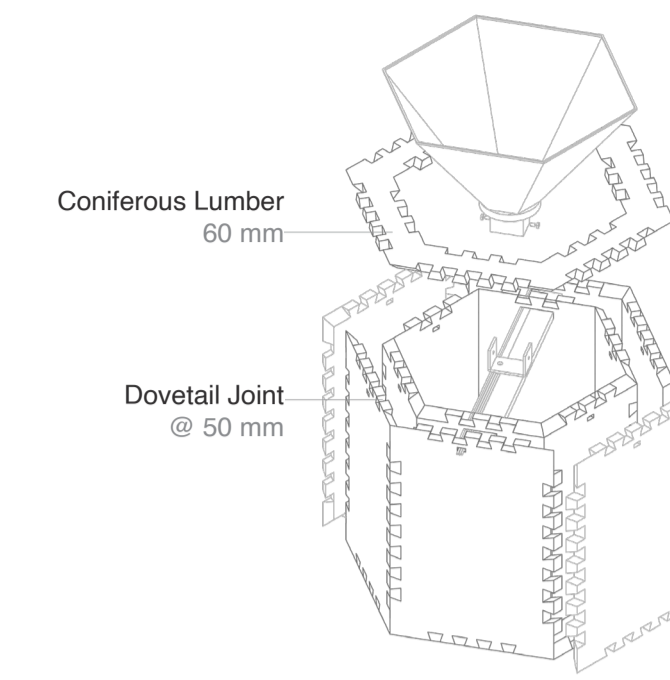
Daytime View of The Main Pavilion



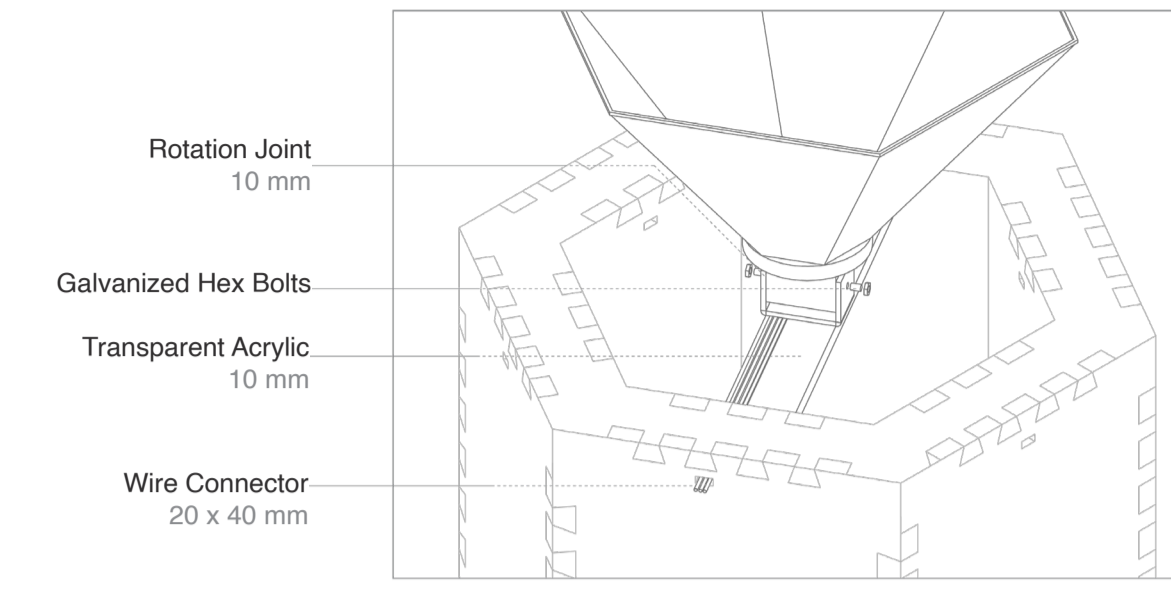
Details, Achieving The Pavilion



One Hexagonal Module
In one kaleidoscope module consists of the solar cell system and the kaleidoscope system



Joint
The dovetail joint is used for the joint system in order to reduce unnecessary materials.



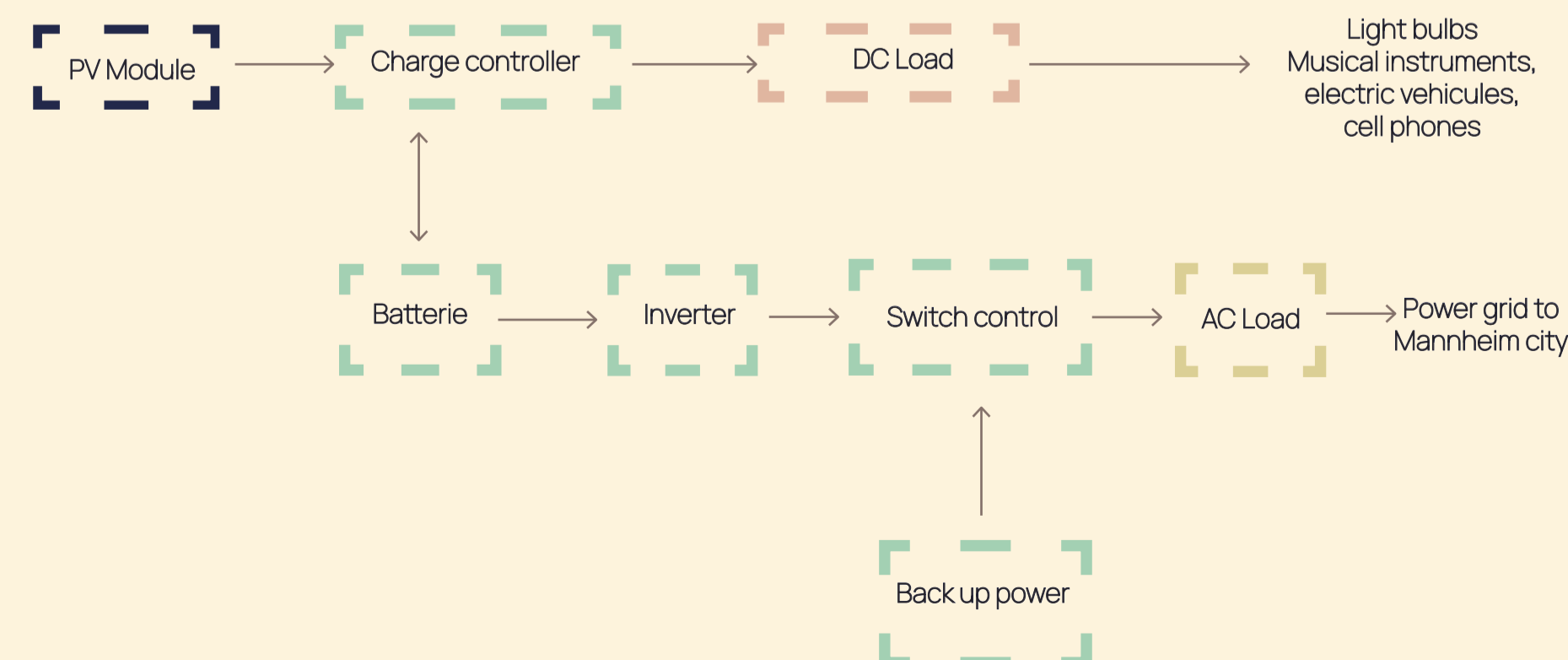
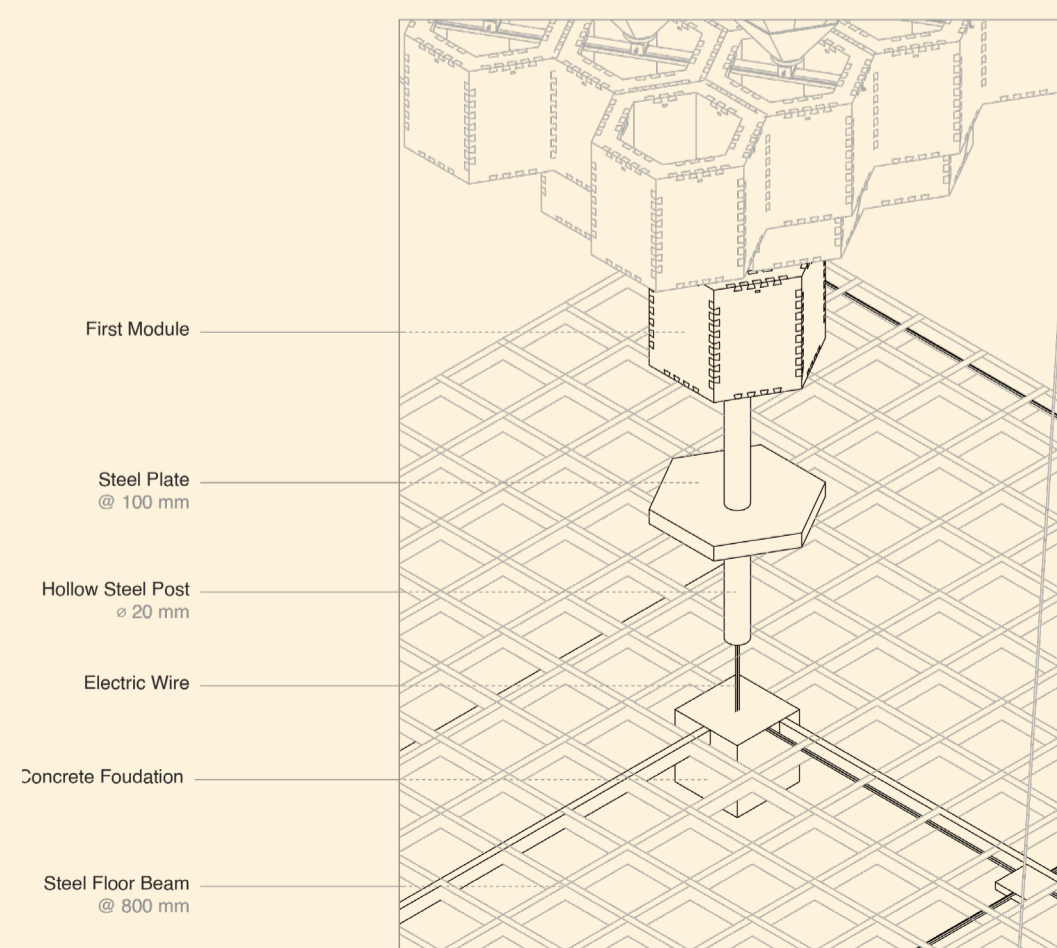
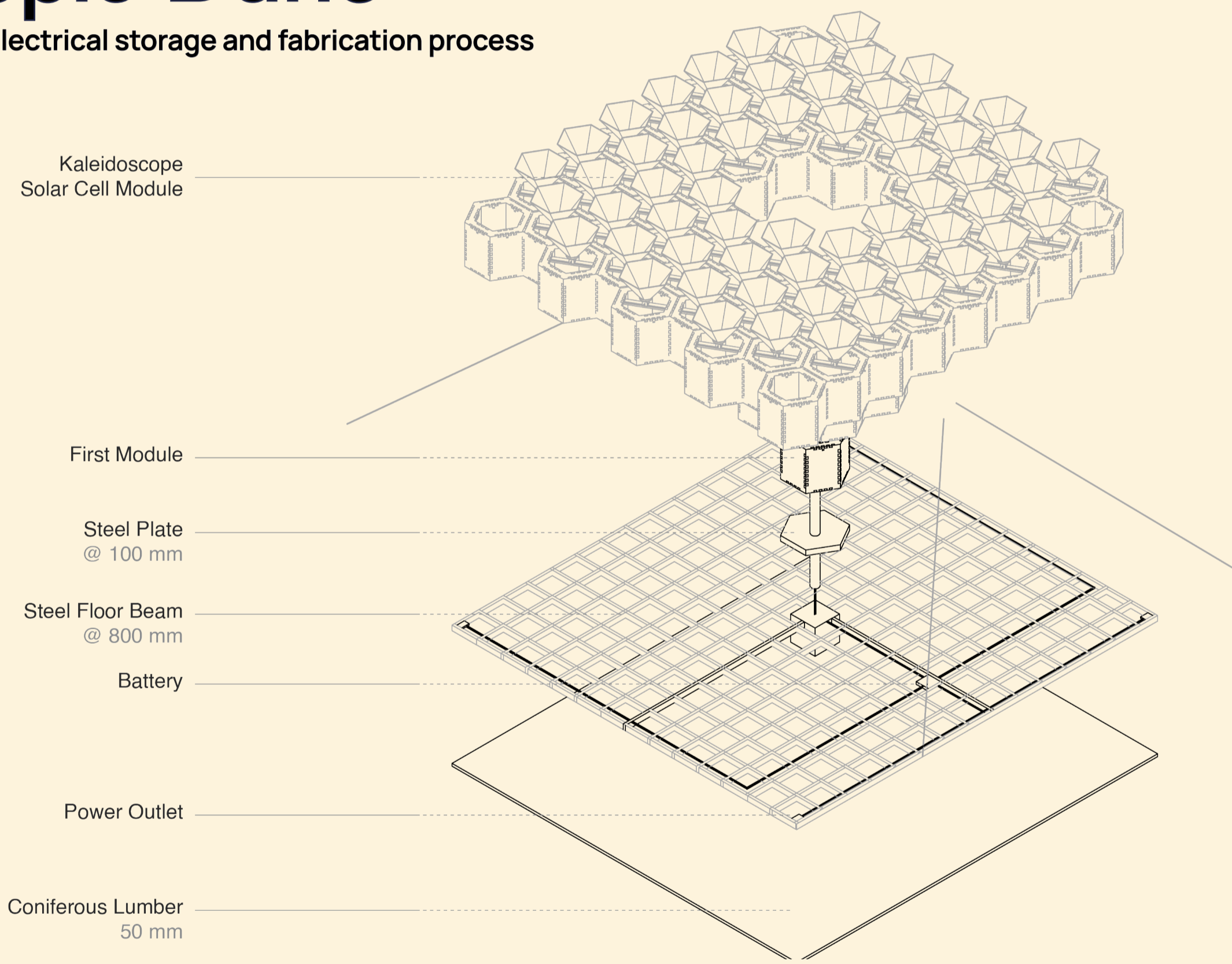
Solar Cell System's Detail
The solar cell will be connected to the rotating joint which will make the solar cell harvest the sun's energy from any direction.

Kaleidoscopic Dune

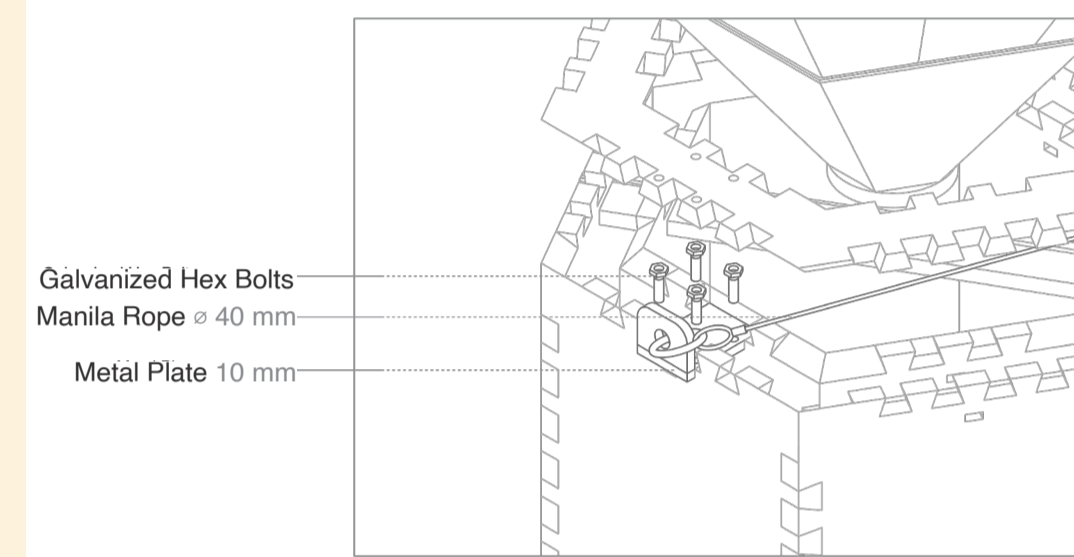
LAGI 2022 Mannheim / Efficient electrical storage and fabrication process

Electrical System Details
Sun's energy is the main input for our electrical system, each hexagonal module will harvest the sun's energy and every electric wire will be connected and it will be combined into one electric wire. These energies will be stored in the main battery which is located in between the foundation structure and it will distribute to floor power outlets located at the 4 corners of the module.

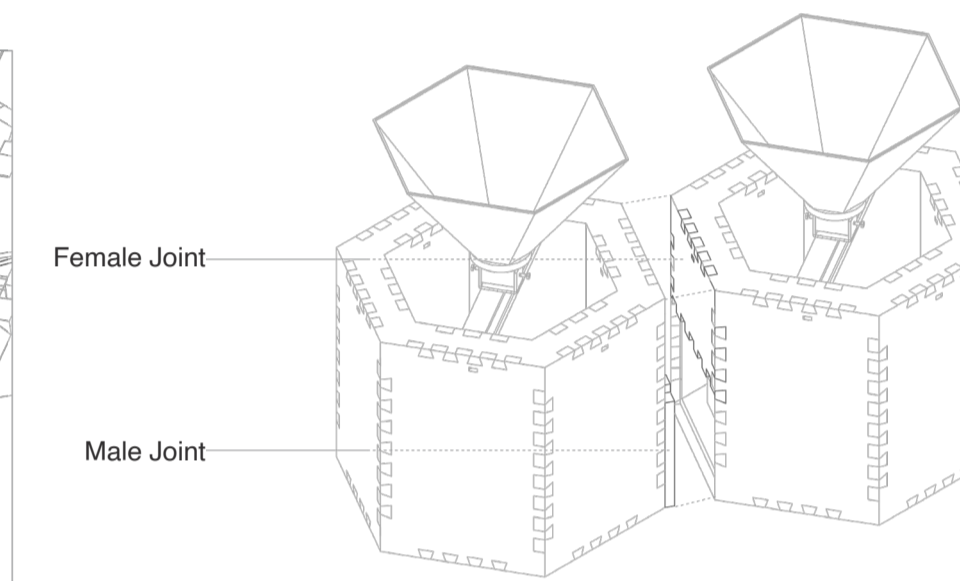
Fabrication Process
In this structure system, the first step of the fabrication process starts from the center hexagonal module. At the center point of the structure, we weld the hexagonal metal plate to the post in order to bring the first hexagonal module to sit on the metal plate. The next step is to connect the rest of the hexagonal modules by using the dovetail joint that we've designed. Lastly, we will install the tension system from the top of the post and the 4 corners of the hexagonal modules.



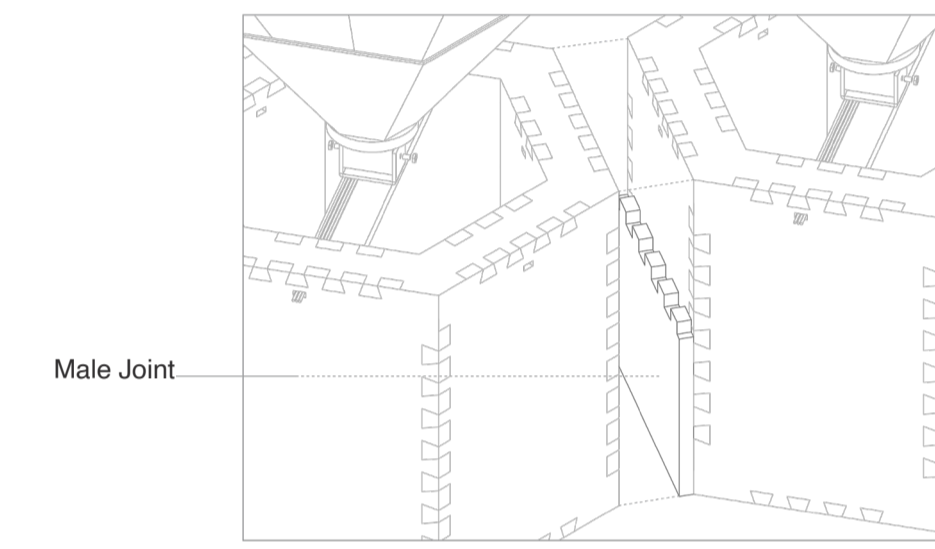
Detail of The Joint Between The Modules



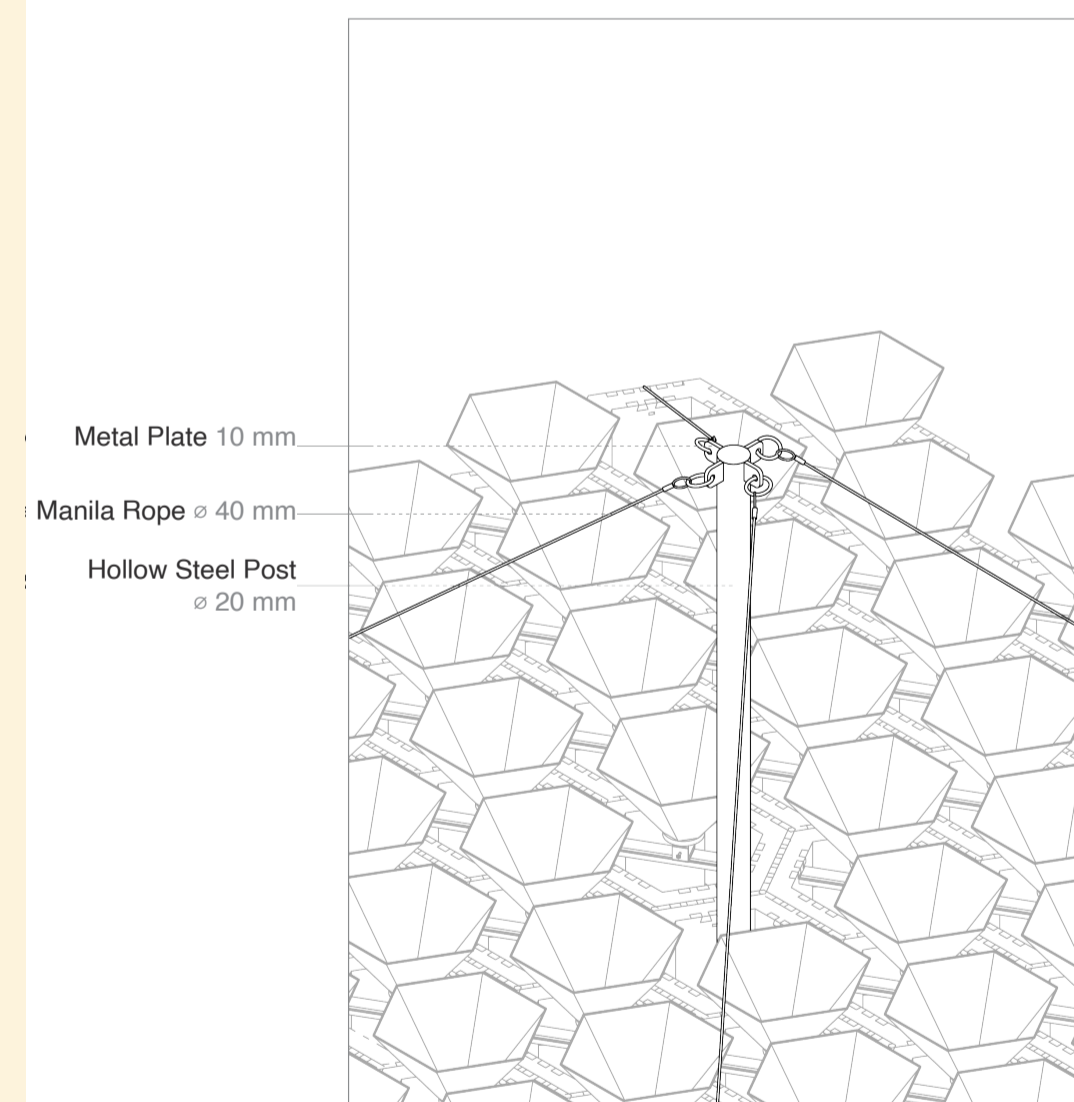
Tension System 2
The second point which needs to be connected by the tension system is the 4 corners of the structure.



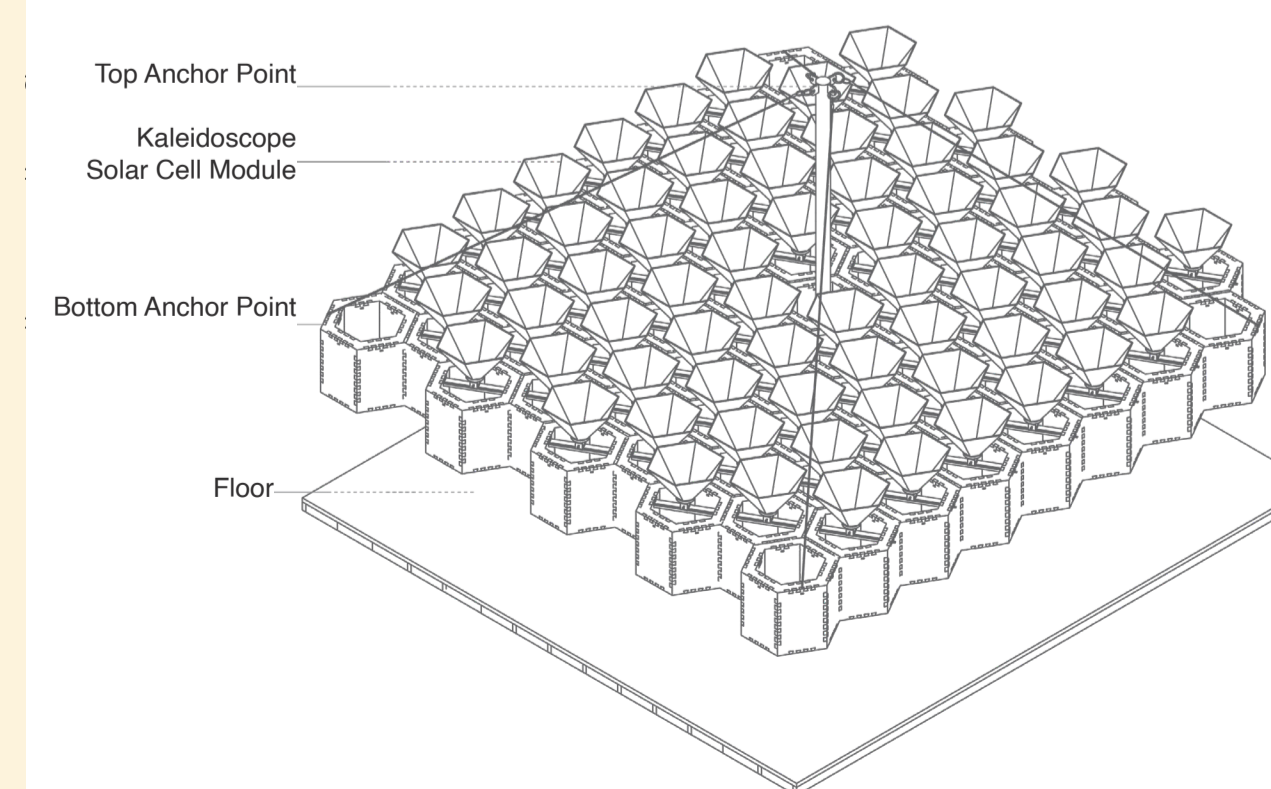
Joint Between Each Modules
This part consists of 2 elements, male and female joints. They can be easily connected to each other with the dovetail joint.



Detail of Joint Between Each Modules
In order to connect between each module, the male and female joints need to be cut at a specific length according to the pavilion's height.



Tension System 1
At the first tension system point, at the top of the post, there are 4 metal plates that are connected with the Manila rope for creating tension.



Alternative Designs
The system that we've designed can be adjusted into many designs by adjusting the height of each hexagonal module and they can be connected to each other in order to create a bigger space.

Roof detail

