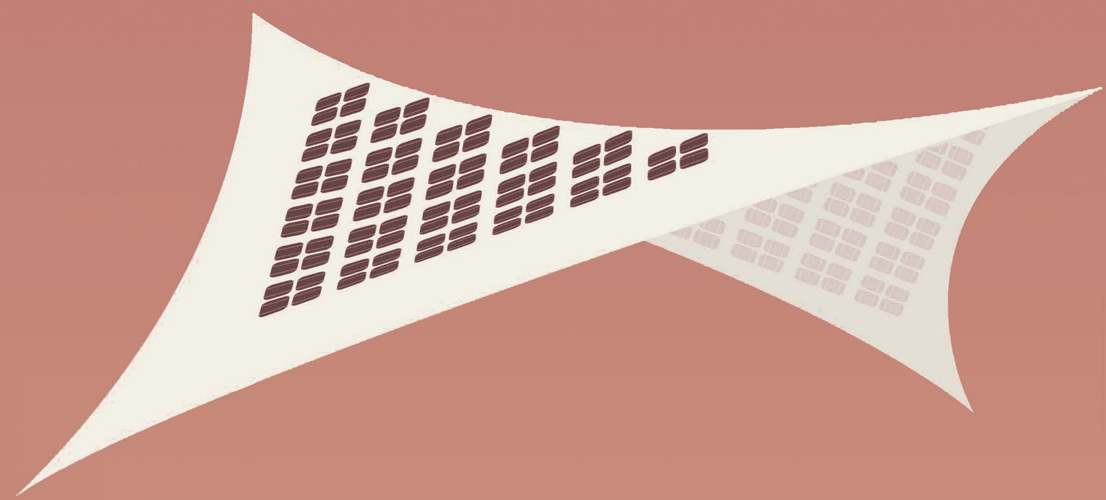
Harnessing renewable energy...

Solar Cell Fabric

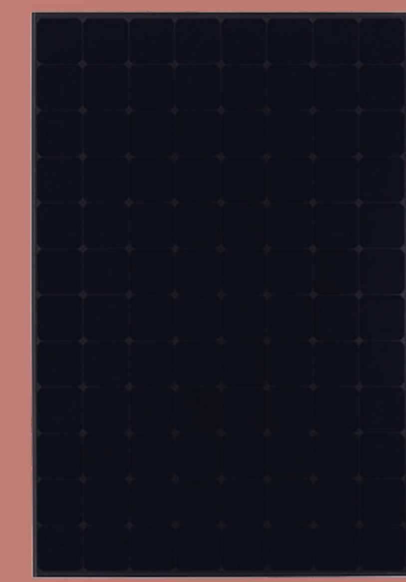


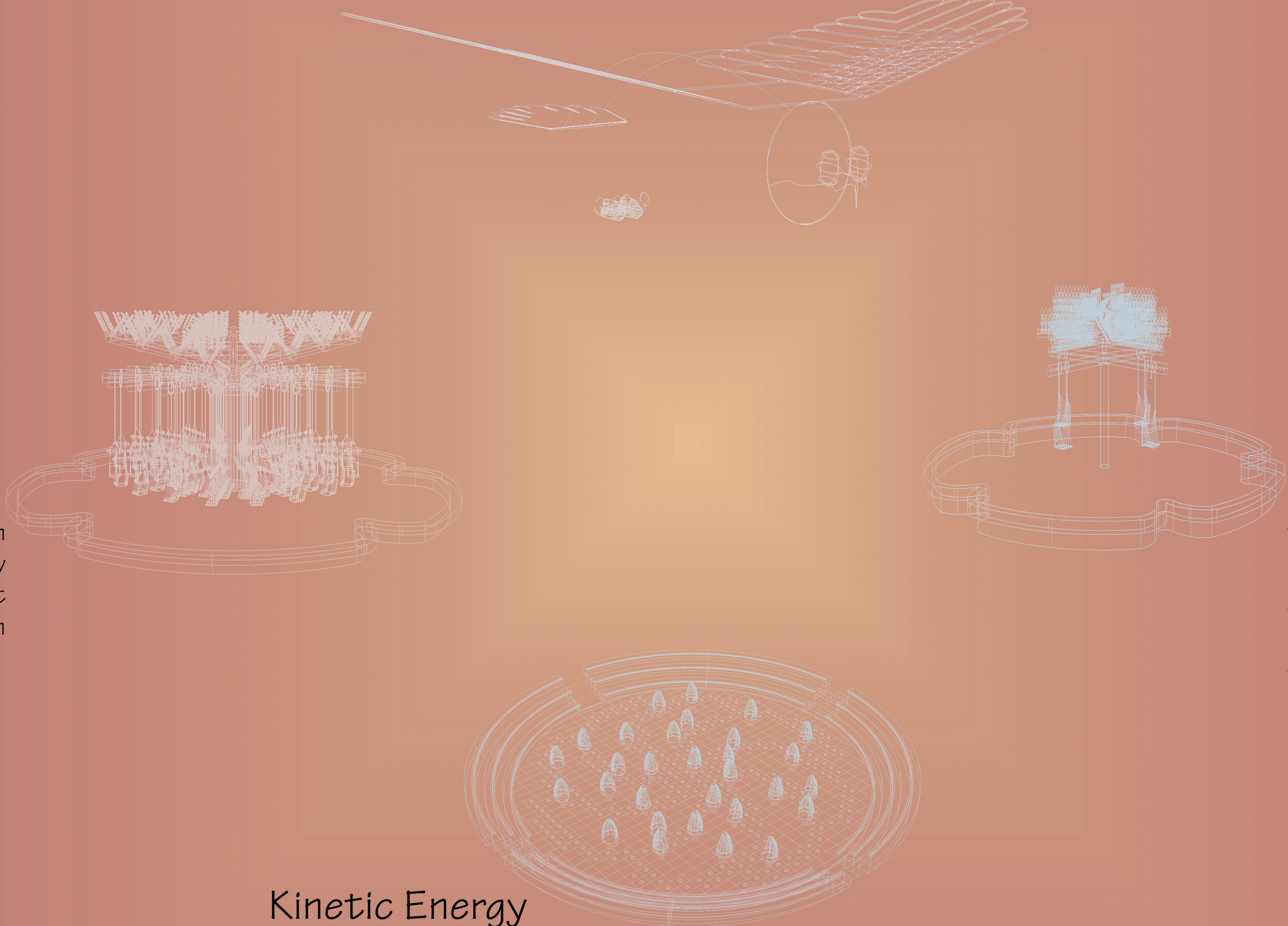
The tail is composed of CIGS cells embedded on the fabric. This solar cell is durable, flexible, lightweight, heat resistant, and the most efficient thin-film solar cell in the market which makes it an excellent material for the canvas. It has the capacity to produce 120 watts per square meter and has an efficiency of approximately 16%.

Solar Energy

The black solar panel blends well into the falcon's wings. It is built on a solid copper foundation which is virtually impervious to corrosion and cracking that degrades conventional panels. It can produce up to 470 watts and deliver the highest efficiency of 22.8% per panel.

L x W x H (m) = 2.067 x 1.046 x .046

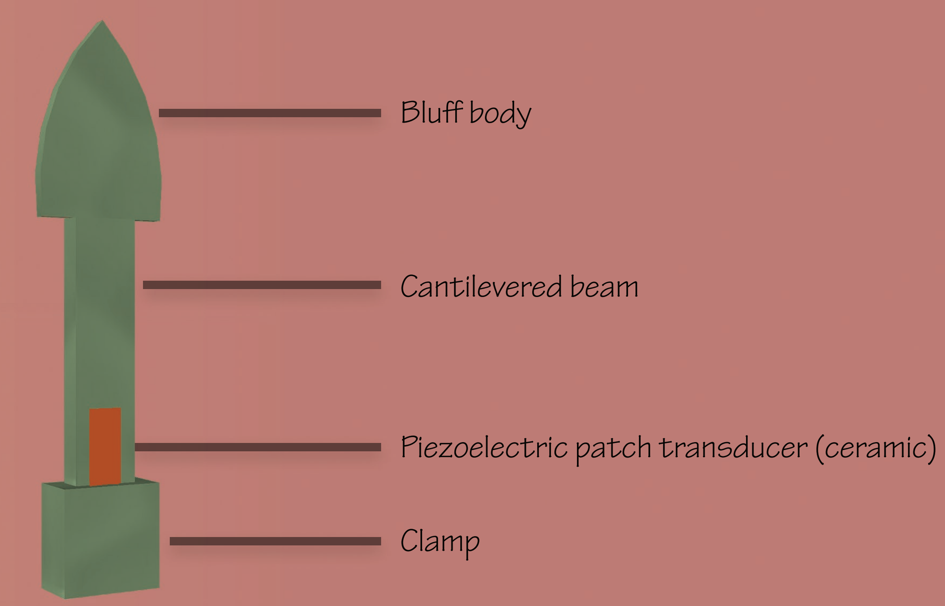




Micor Solar Cell

The spherical micro solar cell is encapsulated with plastic moulding. This micro solar cell has 360° view angle that captures the light from all directions. It has a maximum power point of 0.66 mW and an efficiency of 25.9%.

Area (mm2) = .9 x .9 x 3.14 (cell's ø is 1.8 mm)



Aeroelastic Flutter Energy

The aeroelastic flutter energy harvesting leaves generates 90 mW by utilising ambient vibrations, this will work with any wind velocity which makes it more efficient than any wind energy sources. The piezoelectric transducer is attached at the edge of the cantilevered beam where the most flutter occur.

Kinetic Energy

The weight from the footsteps compresses electromagnetic generators below, it as a power rating of 5 watts per footfall. The triangular composition maximises energy output and data capture, by triggering multiple generators per footstep. The design is both visually impressive and technologically advanced.

Additional advantages:
Low-Power Bluetooth beacons connect to smartphone apps and the system can also communicate with building management systems.
Connectivity via a mobile app, each footstep collected is converted into a digital currency that can be used to reward loyalty or to donate to charitable causes.
The system continuously monitors footfall, providing the ability to predict peak timings and prime locations. Consumer behaviour can be understood by measuring footfall intensity and identifying the number of people walking within a designated area.

L x W x H (m) = .60 x .45 x .087