KINETIC ENERGY FLOORING

Piezoelectric technology is used to convert vibration and storage of electricity to create smarter and sustainable built environments that encourage people to directly engage with clean energy. As people step on the tiles, the weight of their footsteps causes electromagnetic induction generators to displace vertically. This results in a rotary motion that generates off grid electricity. The electricity generated from this is stored in a battery and used to power the LED lights that follow the user as they move across the space. Each tile eventually fades as energy is lost. This offers users an interactive platform that not only engages the user with their space but tracks their own impacts within the environment. This is measured against the energy harvested from the natural environment, creating an interactive platform between man made and nature.

300mm x 300mm x 13mm Polycarbonate tile with slip proof surface
Generators at each corner of the tile used to convert energy. Each corner connects four corners to form a grid.
Pressure from footsteps
LED strip lights, powered from converted energy from battery.

LIGHT FLOORING DETAIL FOR ENERGY PRODUCTION

VIEW FROM ST KILDA BEACH LOOKING TO ST KILDA TRIANGLE

LIGHT FLOORING CONCEPT SHADOW LIGHTS

NIGHT TIME CONCEPT SKETCH

MODEL VIEW OF LIGHT & SPACE

CROSS SECTION THROUGH ST KILDA TRIANGLE