

MCSL

Motion controlled
smart light

MCSL light post doesn't only serve the ordinary purpose of a light post, It exceeds its role in many ways; having Idle mode to conserve energy, having side lights that are always on to always articulate a path, having a dedicated pedestrian light that is also equipped with motion sensors, and above all generating energy.

Architect

Mohamed Abdelkader



MOAVAI
For Architecture and Interior Design



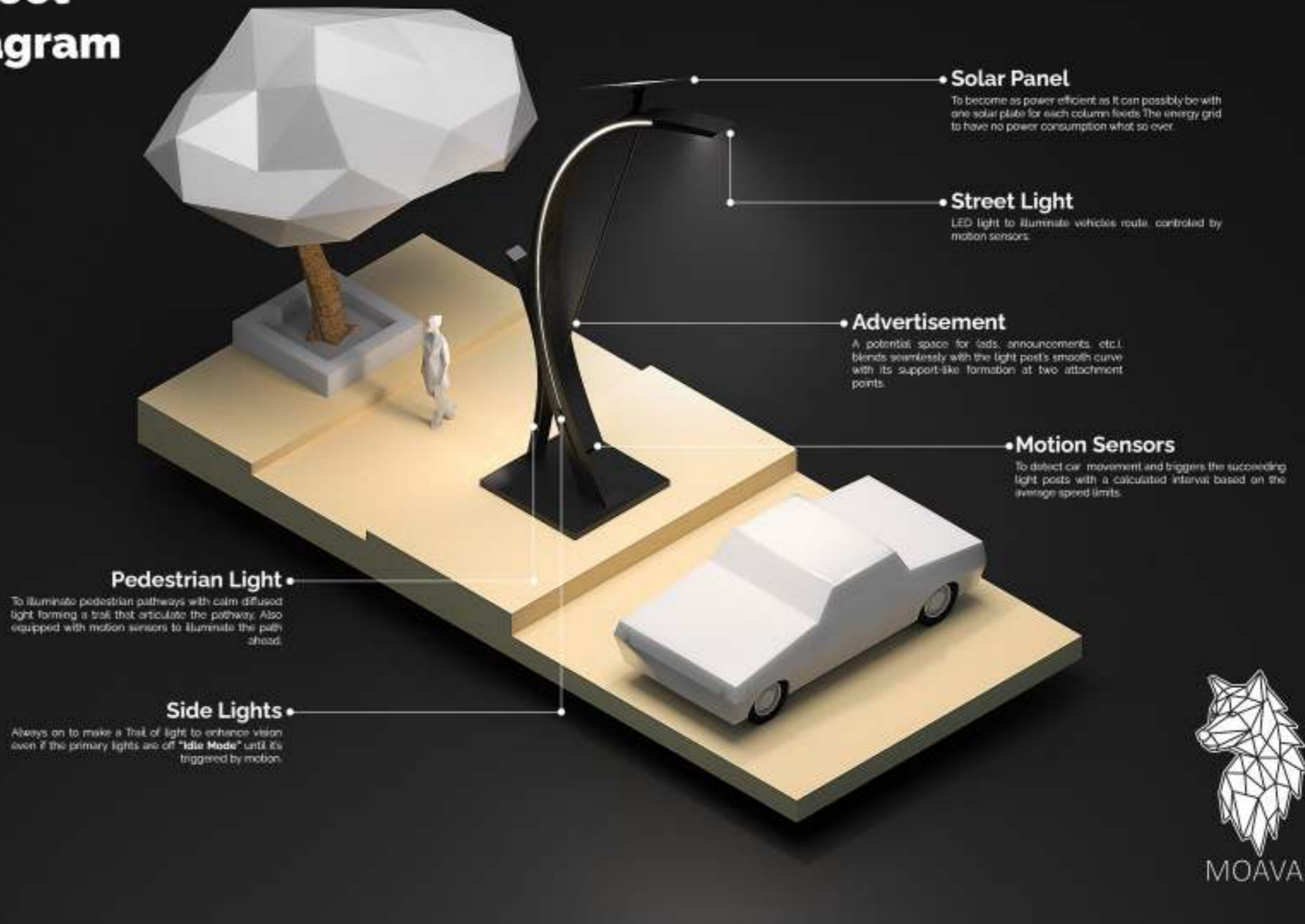
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MCSL

"Motion Controlled Smart Light"



Street Diagram



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Ordinary street lights consume thirty percent of the nation's energy resources, so our plan was to develop a solution by not only reducing energy consumption but also propose a fast payback plan after installation. Our strategy was to formulate "Idle mode" so that all light would be automatically turned off with the lack of motion and turned back on

when any motion is detected. Idle mode operates so that each motion detector triggers succeeding lights by a specific interval assigned based on an equation to relate the vehicle speed to the interval distance (for instance if the lights are distributed every 10m and the vehicle is going at 80 km/hr it means that it covers 22.2 m/s or 2.2 lights/s so the first motion detector should trigger at least 1km away or 100 lights to have a seamless experience), nevertheless side lights are always on to define a trail of light

for further distances when idle mood is on not only for vehicles but also for pedestrians, MCSL is also equipped with backlights for pedestrian pathways that are also triggered by motion detectors with different calculations. Attached Solar panels generate more energy than needed and feed the energy grid so it becomes an "Energyplus" Product.

Motion Sensors "Idle Mode"

