

# Girasol

Girasol is a 60m kinetic sculpture in that rises towards the sky in a graceful arc. The sculpture stands on a 20m pool of water and at it's centre sits a 2m sphere. As the sun rises solar panels embedded into the arc collect the sun's energy and the sphere begins to move. It rolls across the surface of the water and gathering pace it begins to climb the arc. Slowly it rises throughout the day as the sun passes over head describing it's own path, driven by the energy of of the sun. The sphere reaches its highest point as the sun sets and day turns to twilight and then to dusk. The sphere lights up and begins to glow in a shifting cycle of colours, designed to mitigate impact on insect life. The sphere slowly descends the sphere, it's light reflected in the surface of the pond, and is timed to return to the centre of the pond just before daybreak, where it waits in the clean part of the day, when the world has not yet begun its business, and as the sun rises, the light fades and the sphere begins its cycle once more.

The sculpture is carefully aligned with the sun and moon's analemma (annual paths) to create astronomical co-incidences when viewed from the ground. The pool creates a reflective plane surface that appears to hold the sphere and creates an interplay of light and reflection, and forms a physical boundary between the public and the sphere without a visual boundary. The sculpture is made using carbon fiber composites techniques similar to those used in the worlds largest sailing ship masts or wind turbine blades. The arc is cantilevered from concrete foundations mounted beneath the pool. A hoisting mechanism inside the arc pulls the sphere up using motors embedded in the base, and the sphere rolls on a rail built into the surface of the arc. Thin film solar panels are laminated into the surface of the arc, and provide power to a bank of batteries in the base which drive the motor under computer control. In this model the work is placed on the east side and in view of the main road, though it could equally occupy a more tranquil spot and contemplative spot amongst the trees on the western site.