

# Artistic Vision

## Lily; the second member of the Lumo family

With the Lumo family, WERC presents a series of art installations that connect natural processes, art and technology. WERC calls such an installation a 'digital organism' and has been inspired by the biological processes that take place within a group of organisms such as a flock of starlings, a group of fireflies or a school of fish. Lily is the second member of the Lumo family with his own habitat; the water.

## Lily; Digital Aquatic Organism.

Lily is a light installation that floats on the water surface. By using sensors Lily is able to interact with its environment. The motion of the water, the temperature and the size of the flock all influence their observable behaviour. The Lilys make their own decisions, so they create light patterns that we are not able to predict, taking away the control of the artist.

Nature is the host of the Lily and is the only one influencing them, allowing their behaviour to form in a dialogue between nature and technology. Every individual Lily makes choices. The choices of the individual are amplified by the flock. Looking at the organism as a whole, complex behavioural light patterns start to emerge.

## Habitat

Lily resides on calm waters, lakes or slow flowing rivers. They are spread out evenly occupying the whole of the water surface. They have a floating semi-translucent shell that amplifies and defuses its light output. When the sun sets they wake and start illuminating. The dark reflective water serves as a mirror to intensify the light coming from its glowing shell. These lights are the visual output of their decentralized decision-making process. The Lilys are constantly measuring the movement of the water, this movement influences their communication. This gives the Lilys the possibility to not only use each other in creating a visual output but also be influenced by the water movement when ripples occur. Making the Lily an integral part of the water surface.

# LILY

## Sensors

Each Lily has multiple sensors that they use to feel their environment and other Lilys. They communicate among each other using radio waves. Sending short messages and repeating them to their fellow species. When they receive a message they blink their light. Lily also takes temperature and motion measurements. These are used in their decision making process. The motion sensor is used to detect the state of the water, adapting the algorithm accordingly. The code running on each Lily is the same, but their measurements and interaction with the flock changes variables in its code. Allowing each Lily their own unpredictable behaviour.

## Rules in nature

Nature has beauty in its unpredictability, no tree is the same but they all look like trees. If you find the classifier of a tree you could replicate them without them being identical. WERC does something similar with the Lily. Instead of designing the visual outcome, WERC designs the rules for a single Lily and duplicates that a multitude of times. Every Lily the same, following the same rules, allowing them to branch off to their own path and create their own unique "tree".

## WERC

Flip the word WERC and you get CREW. A crew consists of a group of people who work closely together. WERC also forms a group like this with its makers from different disciplines. The interdisciplinary art collective WERC consists of Joachim Rümke, Olav Huizer and Jelle Valk and is based in Groningen. Their work is characterized by experimenting with new media and technology, in which new forms and challenges are always sought in changing formations and diverse disciplines. In WERC's interactive installations and performances, their shared fascination for the connection between the digital and the physical world is always apparent. The humanization of technology and the interaction between people, nature and technology are the guiding principles in their work.



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