A glowing white light trail, resembling a comet or a light painting, streaks diagonally across the frame from the upper left towards the lower right. The background is a dense, dark forest of green leaves, with some leaves catching the light and appearing slightly brighter. The overall mood is mysterious and ethereal.

# Far Away, A kinetic & luminous ballet

# About Chevalvert

## Presentation

Created in 2007, Chevalvert is a visual design studio based in Paris. The specificity of the studio is its relationship to images, which are object-oriented and systemic. Process and results have the same importance. The studio's productions explore several fields of graphic design, such as interactive design, editing, video, spatial and interactive installations. Awarded in Europe, its installations have been exhibited in several countries around the world.. More projects: [chevalvert.fr/installation](https://chevalvert.fr/installation)



**Far Away, 2021**

Light as a kinetic & sound ballet



**Rythmus, 2019**

Light making visible the public's heartbeats



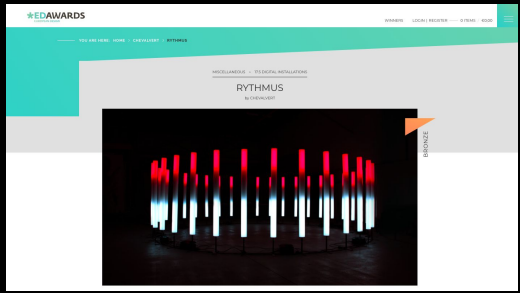
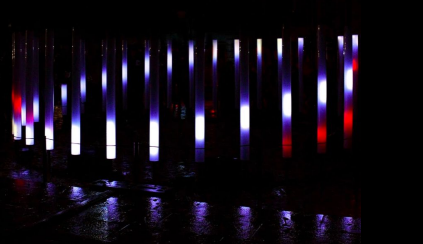
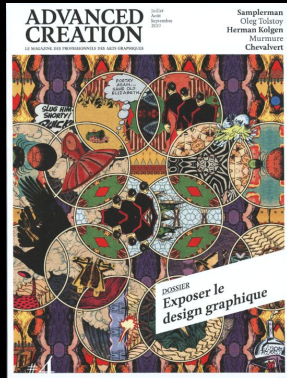
**Stratum, 2018**

Light influenced by the public's hands gestures.

# Awards and releases

In 2014 and 2019, Murmur and Rythmus were awarded by the European Design Awards.

Chevalvert was also presented in a full article in the Advanced Creation magazine.



# Far Away.



Far Away may look like a space exploration scene, materialized by 12 rotative Sentinels, which scan the ground searching for a sign, a movement or a resource.

These Sentinels, that behave like scanners or gyroscopes, offer a cyclic, minimal and bewitching ballet to our curious eyes.

What are these sentinels looking for? How do they interact? What do they respond to? The presence of the public under the pieces seems to disturb their exploratory tasks...

**« Halfway between a scientific study and a poetic choreography, the Far Away installation refers to the condition and isolation of the exploration robots (like Perseverance on Mars). This latest creation of Chevalvert is related to the way messages are transmitted into outer space, and to the man-machine interactions. It also refers to the question of presence of life here, as well as far away from here...»**

# Far Away

> video presentation









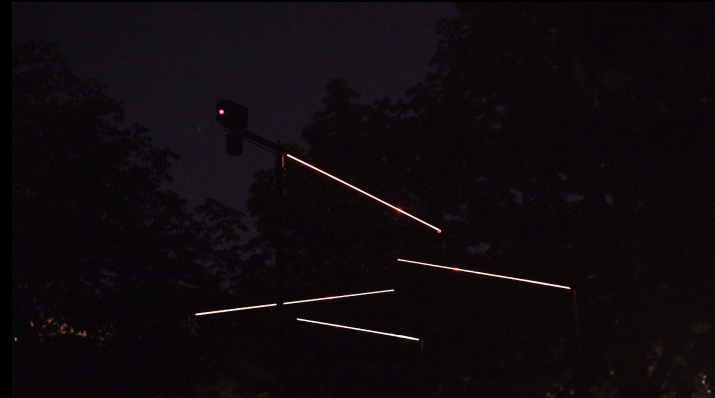




# Interactions and principle of the kinetic system

Far Away is this set of sentinels, which compose a luminous and reactive network. Each entity is in perpetual rotation, they have the capacity to interact, between themselves or with the public, via a double sensor system located at the end of each rotating arm. The resulting kinetic and sound ballet materializes all the interactions of the system.

**« The resulting kinetic and sound ballet materializes all the interactions of the system. »**





## Interactions and principle of the kinetic system

When the sentinels are rotating without interaction, the LED on the rotating arms remains red. This is the "search" mode.

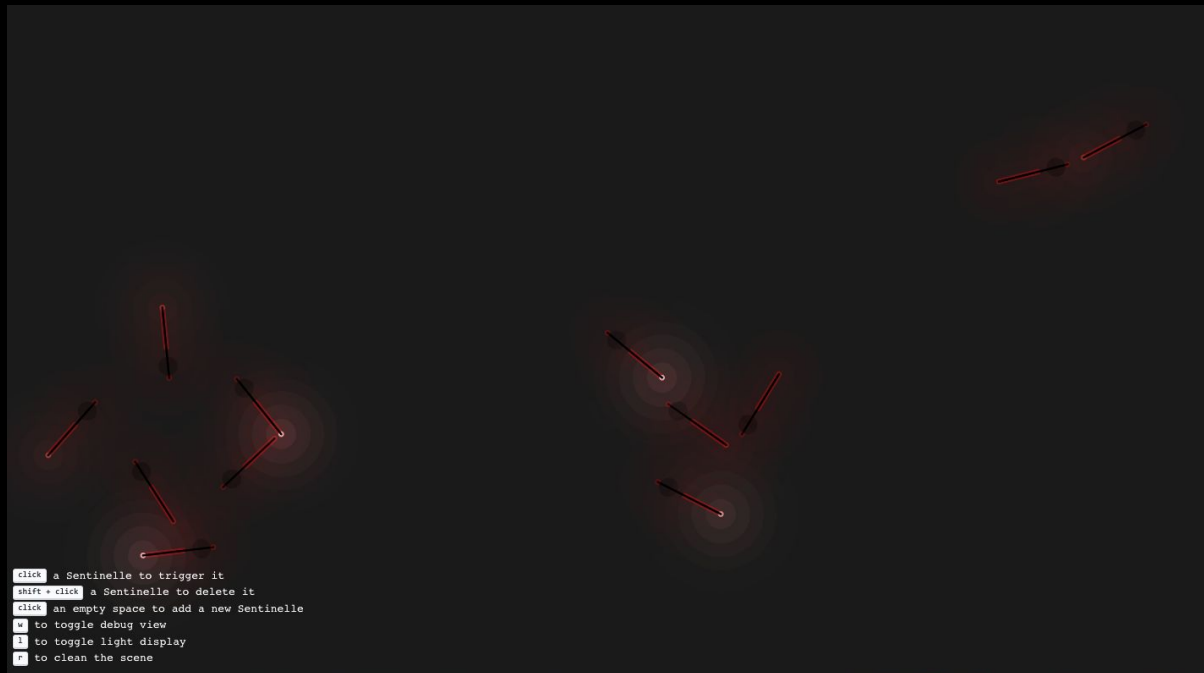
But as soon as the sensors located at the end of each arm meet an object (another sentinel arm or a person), the "detection" mode is activated: the LED banner turns white, the rotation speed accelerates and the sentinel emits a sound signal.

**« A phantom behavior appears, when from near to near, the sentinels cascade and create an inter-sentinel event. »**

Online simulator allowing to visualize the complete system (triggers and interactions of the public are simulated with a mouse click)

# Interactions and principle of the kinetic system

<https://chevalvert.github.io/faraway-sketch/>



# Setup

## Setup time

With 2 people, if electricity is provided at the feet of the sentinels, and once the equipment is on site = 1.5 days

## Dismantling time

2 people = 0,5 day

## Material to be provided by the organizer

- 12 heavy bases
- Electricity 2 x 16A at the edge of the installation
- Heras barriers if needed to secure at night and during the day + full time security by an agent from set up to dismantling
- 4 amplified speakers (no need for stands) + 1 sub
- Storage space (if the boxes are stored far away, provide a small storage space close by for spare equipment)

# Spatial location: general information

Far Away can be installed on different types of soil (sand, grass, mineral), it is nevertheless necessary to have a relatively homogeneous leveling of the ground to facilitate the installation of the installation.

The 12 sentinels can be divided into different groups or all together. The only constraint is to have a free space around the sentinel, with a radius of 280 cm. A sentinel must be located at a maximum of 460 cm from another sentry and at a minimum of 270 cm.



# Technical documentation

Regarding technical aspects of the installation, the visual richness is the result of a rather minimalist internal device, since each sentinel lives independently, with a few components:

→ **Detection/Scan:** an infrared sensor above and below each end of the arm ("Lidar" type, as on the latest iPhone 12 Pro, which are also used in the space industry, as they are able to map an environment in three dimensions)

→ **Materialization of the reaction:** an LED strip placed under each rotating arm (red when asleep, white after an interaction), a sound note.

→ **Brain:** microcontroller (electronic board)

→ **Body of each unit:** a heavy base (Global Truss type) for the stability of the foot and its rotating arm. Everything was made from calculation notes to ensure resistance to centrifugal force and unbalance, in particular.



# Calculation note and wind resistance

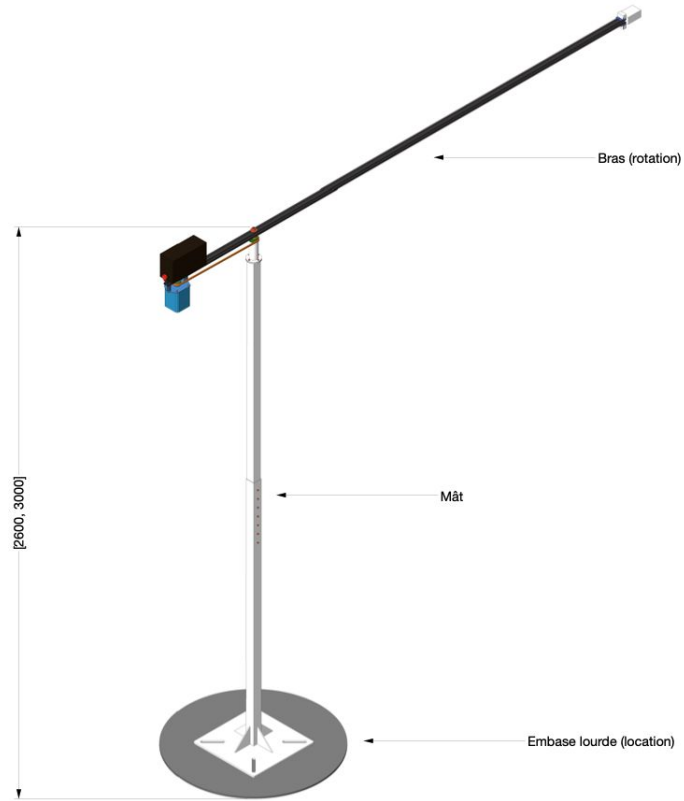
The calculation demonstrates the stability of the sentinels' structure for the expected normal use conditions and in particular a fortuitous horizontal human action at man height (e.g. 1.75m) qH of 1000N/m.

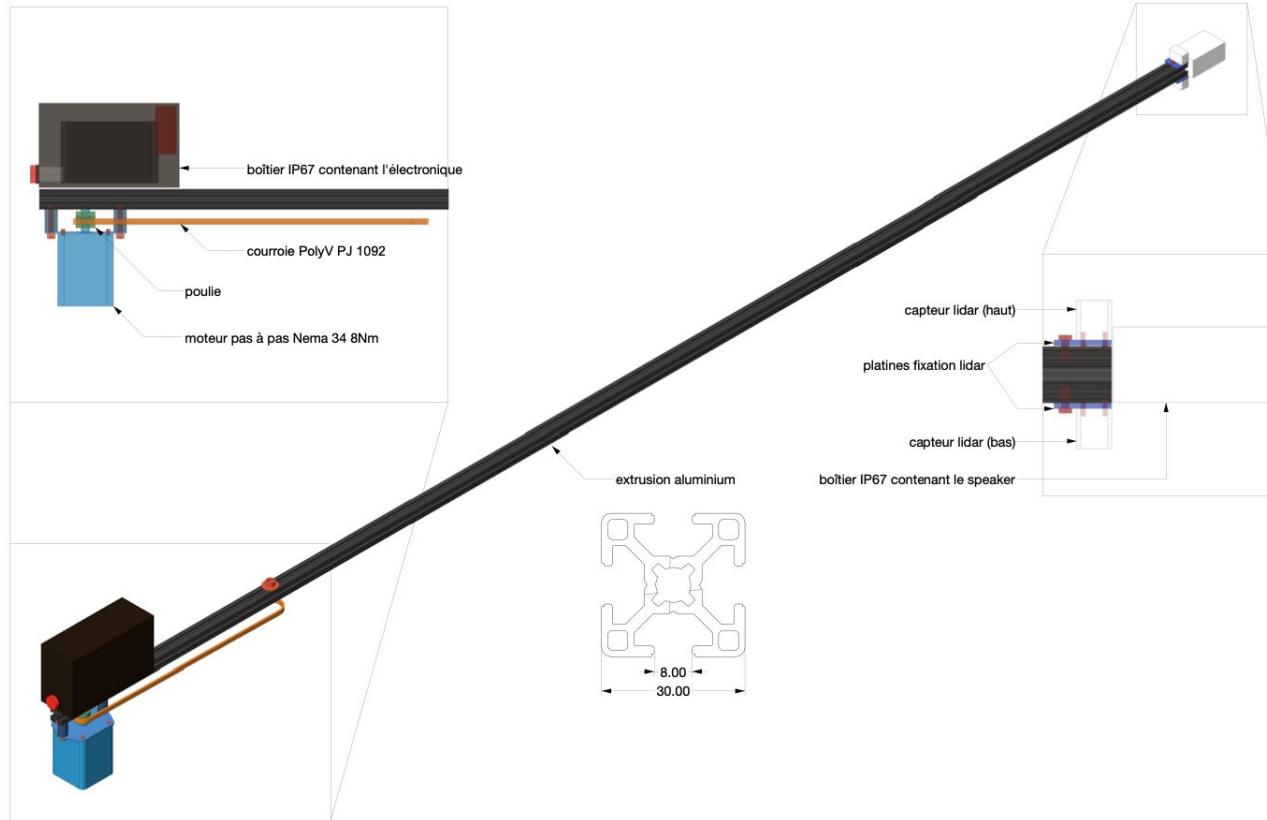
Apart from these actions modeling a fortuitous collision of a spectator, the installation is not designed to resist vandalism.

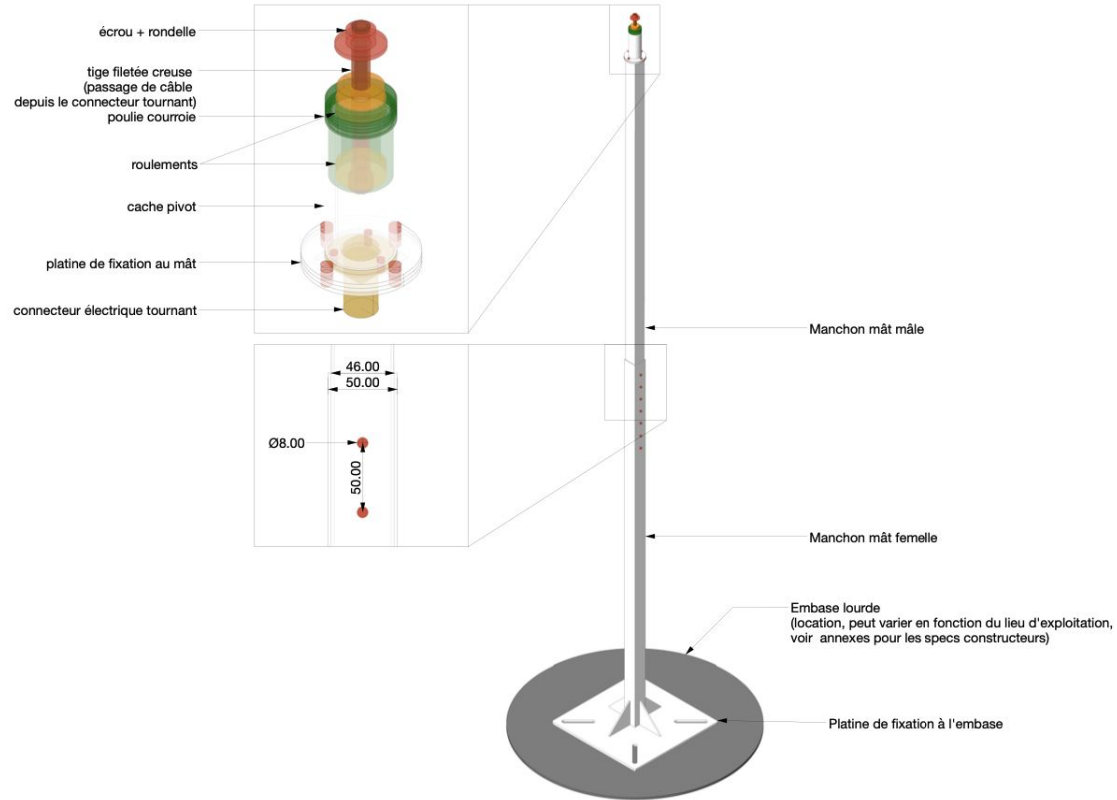
On the other hand, the structure is stable with respect to the wind forces exerted on it.

However, as a precautionary measure the installation will not be open to the public beyond level 4 on the Beaufort scale.

General view



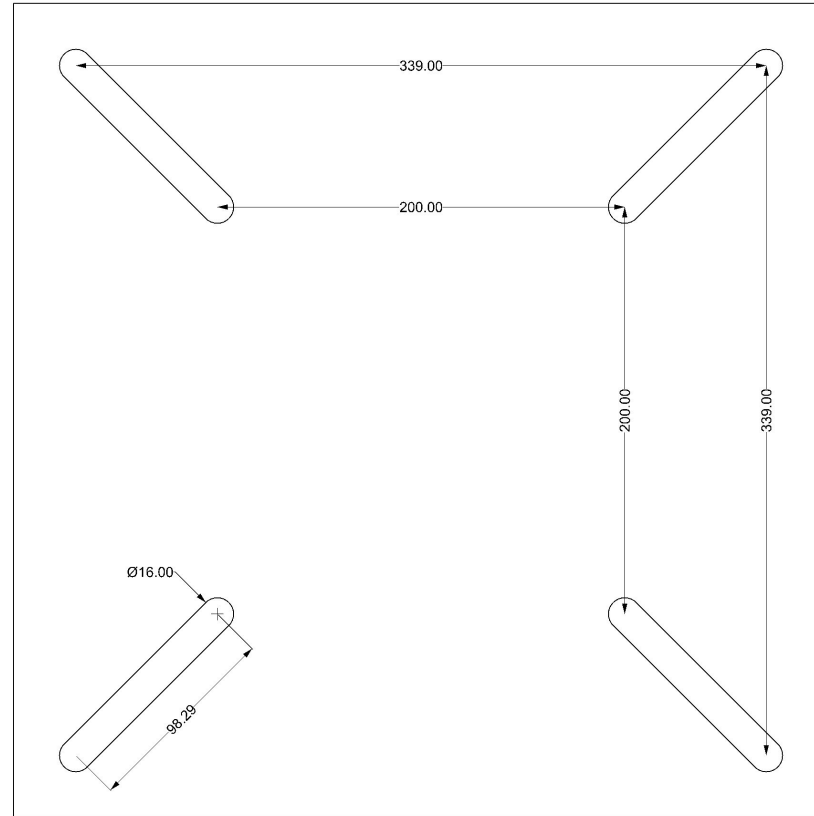
Nomenclature bras

Nomenclature mât

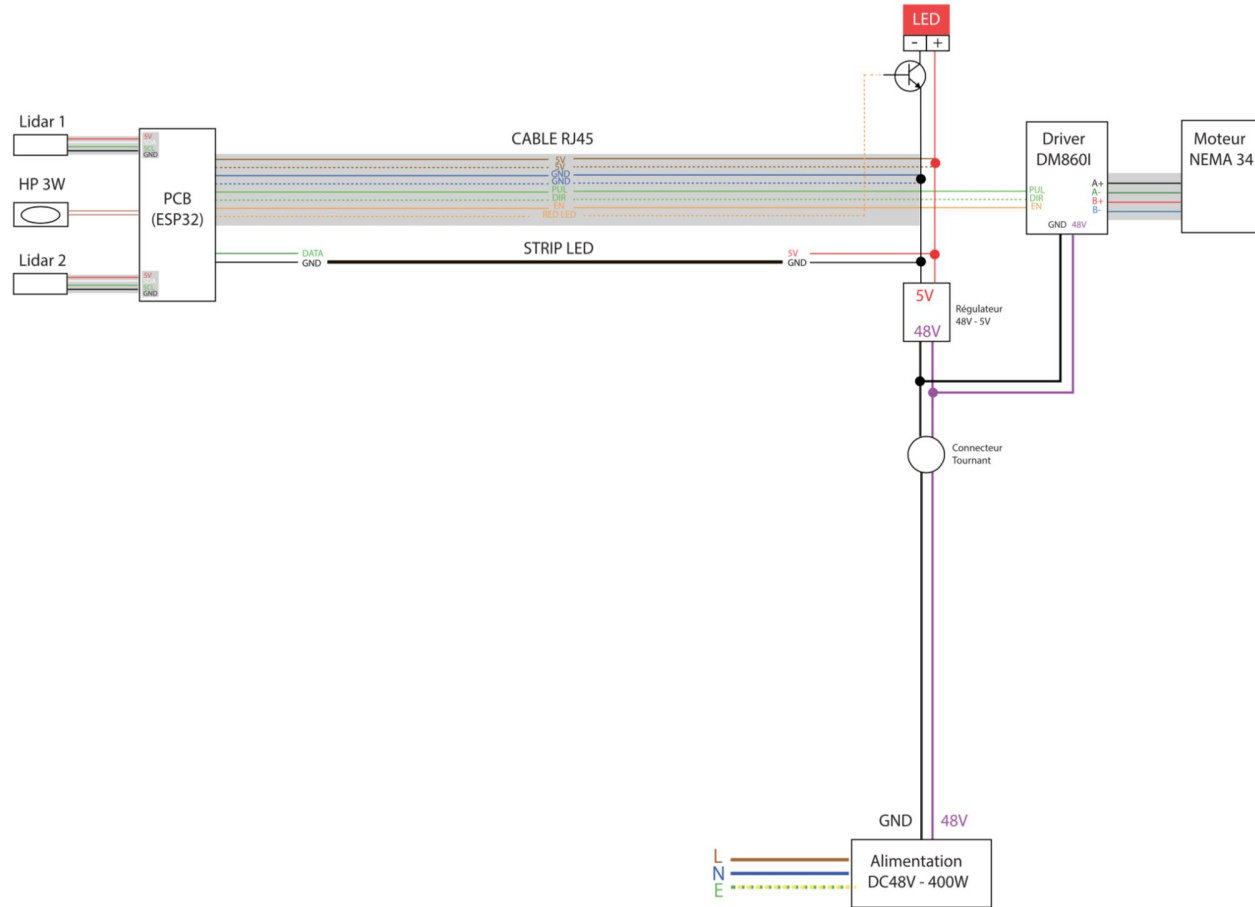
### Compatibilité embase

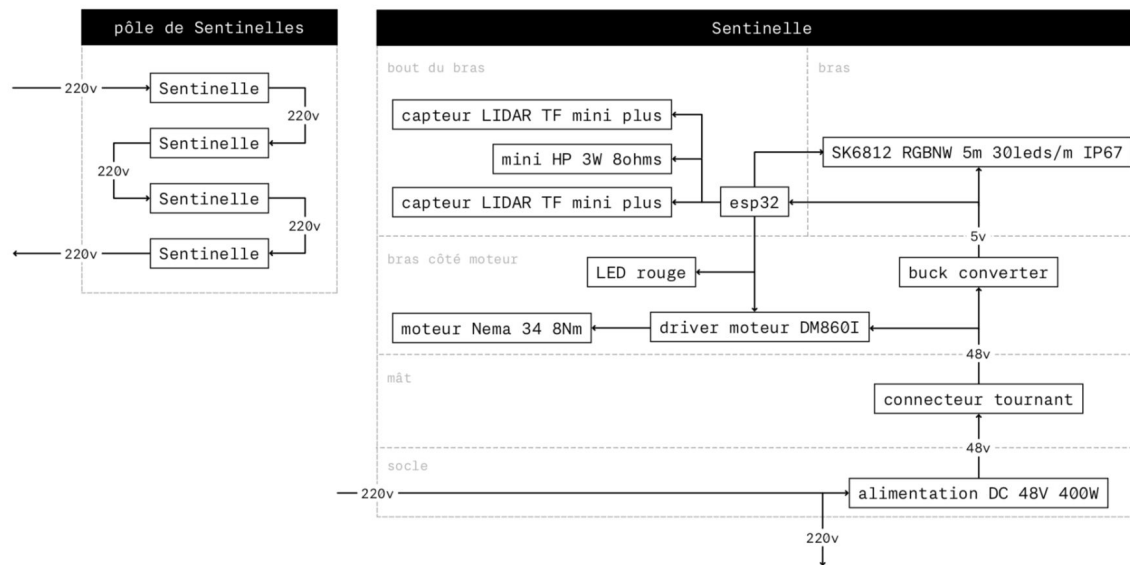
La platine de fixation est conçue pour accommoder tout type d'embase lourde compatible structure type Truss quatre points, allant de 200 à 339 mm de côté.

Le boulonnage se fait par en-dessous à l'aide de vis FHC.



Plan de câblage d'une sentinelle



Synoptique technique

# Setup

Installing the masts on heavy bases (53 kg)





# Setup

Placing the arms on the masts



# Setup

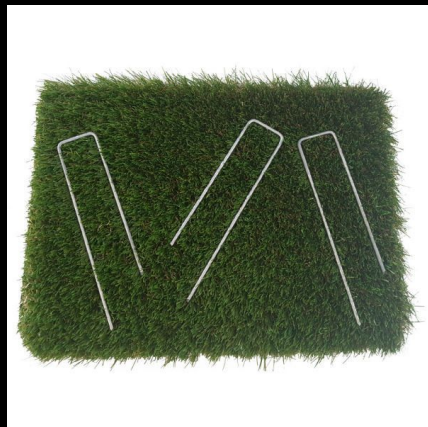
## Wiring



# Setup

## Cables burrial

When the ground allows it, we recommend burying the cables connecting the Sentinels to each other.



*staples for fixing the cables to the ground without damaging the lawn*

When the ground is in grass, we recommend stapling the cables in the grass (a temporary solution respecting the integrity of the lawn), and the use of grommets on the passages in stabilized/asphalt/etc...



*cable gland for hard surfaces*



# Starting up

The production of the system requires only an electrical switch-on and the launching of a soundtrack.

The interaction of the modules and their sound emission is decentralized on each Sentinel.



# Sound ambience

The sound of the installation is done in two distinct and complementary ways:

- There is a mini speaker at the end of each sentinel's arm, which makes a slight beeping sound each time another sentinel or a visitor is detected.
- A sound effect is played in a twelve minutes loop around the installation. It requires tusing at least four speakers. The sound intensity of this layer is to be defined according to the requirements of the place.

# Transport

## Equipment:

- 3 transport pallets for the arms, the dimensions of which are for each:
  - 320 x 100 x 63 cm
  - about 200 kg



# Diffusion / Mirage Prod – Dolus & Dolus

## Contact and information

### Production :

Simon Parlange  
simon@miragefestival.com  
General coordination –  
Production

T – + 33 6 88 54 40 42  
www.miragefestival.com/

Dolus & Dolus is an association under the law of 1901 founded in Lyon in 2008. It works to promote innovative and emerging digital cultures on the scale of its territory, but also more widely, on a national and international scale. From 2013 to 2020, Dolus & Dolus organized the Mirage Festival, an event dedicated to art, innovation and digital cultures on the territory of the Lyon Metropolis. The Mirage Festival focused on the place of new technologies in artistic creation and more broadly in the creative industries. Since 2013, Dolus & Dolus has also been developing an activity as a producer of digital installations and audiovisual performances (Mirage Prod) that it presents within and beyond the national borders. Renowned for its expertise in its field, the association's team also acts as a service provider, whether for public authorities or private companies.

[miragefestival.com](http://miragefestival.com)

# Credits

This piece was presented as part of the Constellations festival in Metz 2021.

Creation @chevalvert\_studio

Original creation : Festival Constellation 2021 – METZ @constellations\_de\_metz  
curator @jeremiebellot

Technical development and production : Hémisphère, Chevalvert

Sound design : Romain Garcia @iamromaingarcia

Diffusion :Mirage Prod @mirage

Previous installations :

<https://vimeo.com/chevalvert>

- Bassin de lumière (2019)

<https://vimeo.com/342044011>

- Rythmus (2018)

<https://vimeo.com/306221795>

- Stratum (2017)

<https://vimeo.com/246864441>

- Murmur (2013)

<https://vimeo.com/67242728>