

BEHAVIORAL OBJECTS

MODULE RECHERCHE ET CRÉATION

*RAPHAELLE KERBRAT
FILIPE PAIS
OLIVAIN PORRY
DIDIER BOUCHON*

30.09 — 13.12

— WHO ARE WE ?

— SCHEDULE / STRUCTURE

— THE BEHAVIOUR OF THINGS

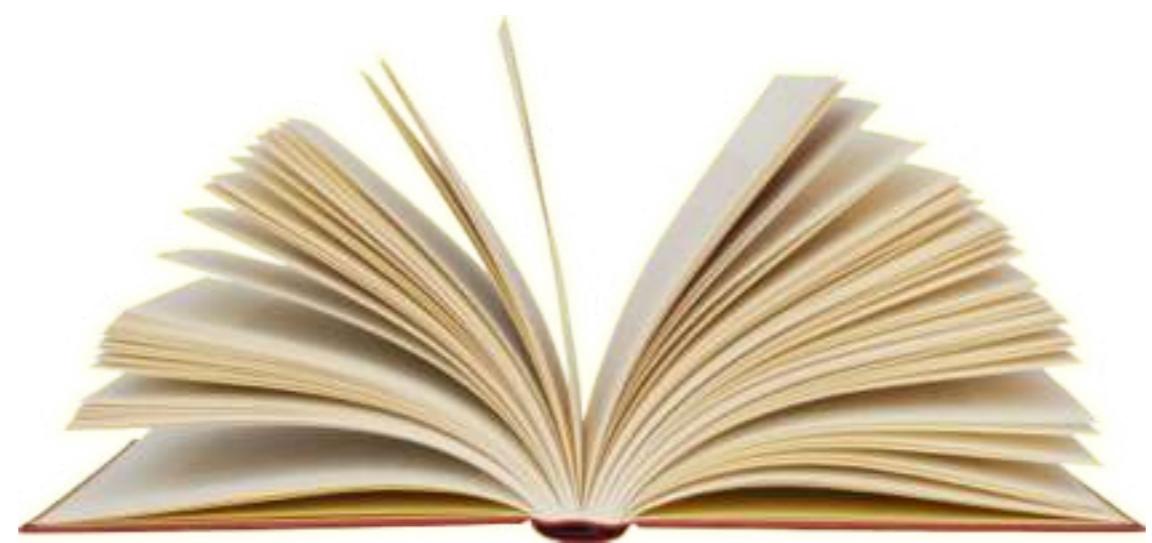


THE BEHAVIOUR OF THINGS

- art & design (Samuel Bianchini, Emanuele Quinz, Filipe Pais, Olivain Porry, Raphaelle Kerbrat, Selma Lepart, etc)
- anthropology (Joffrey Becker)
- engineering (Didier Bouchon, Cécile Bucher, Alexandre Dechosal)
- robotics (Jean-Paul Laumond)
- cognitive science (Florent Levillain)

CAN OBJECTS BEHAVE?







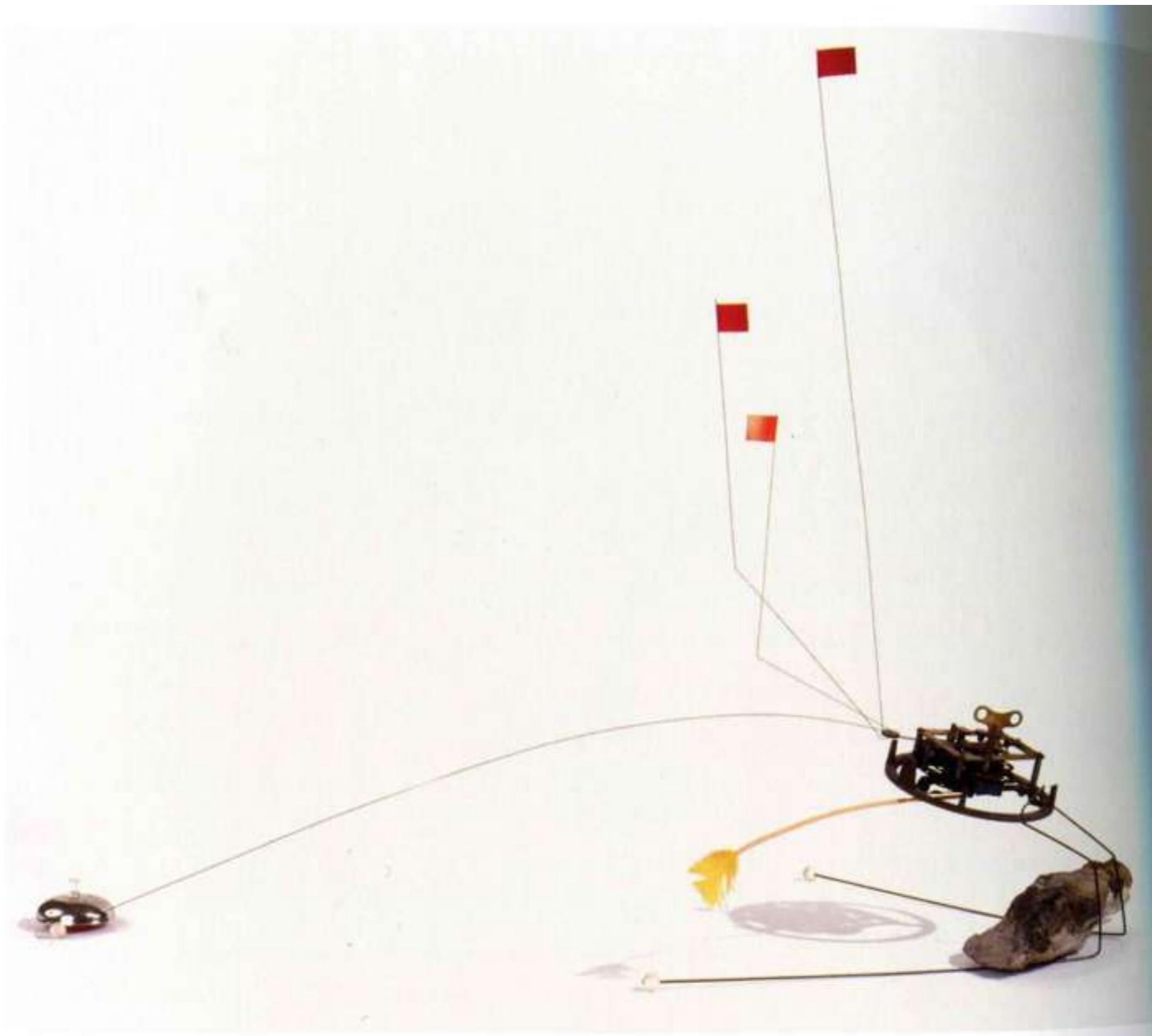


**CAN OBJECTS SUGGEST BEHAVIOUR
THROUGH MOUVEMENT?**

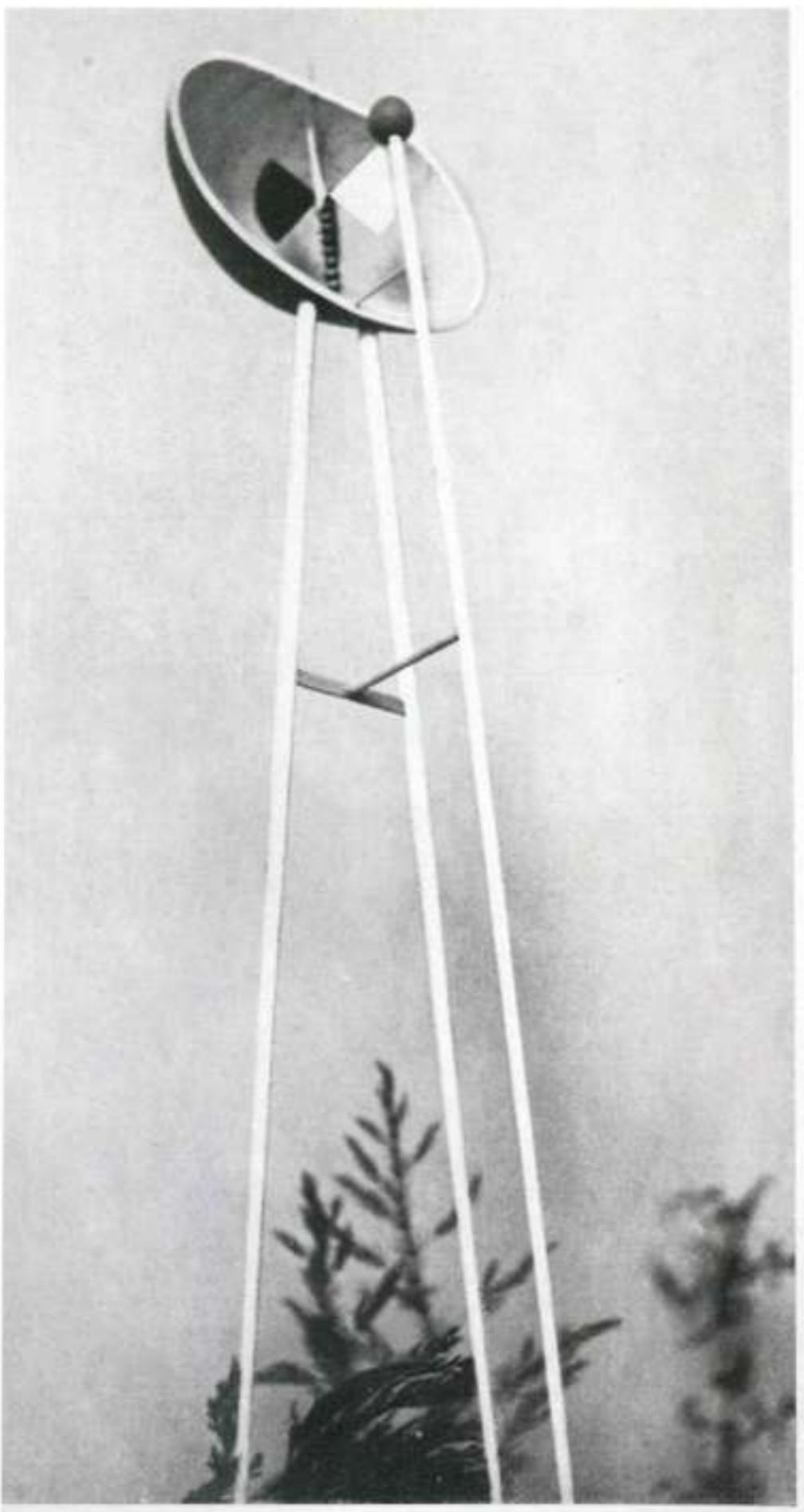
BRUNO MUNARI, USELESS MACHINES, 1940–1953



41. *Useless Machine (Arrhythmic Carousel)*, 1940-1953



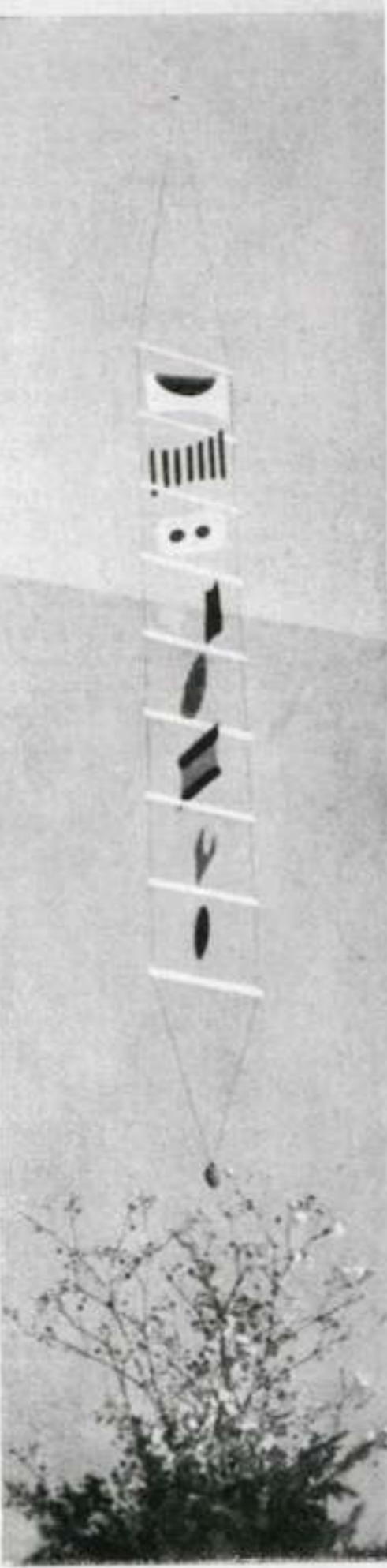
40. *Arrhythmia (Red Flags)*, 1951

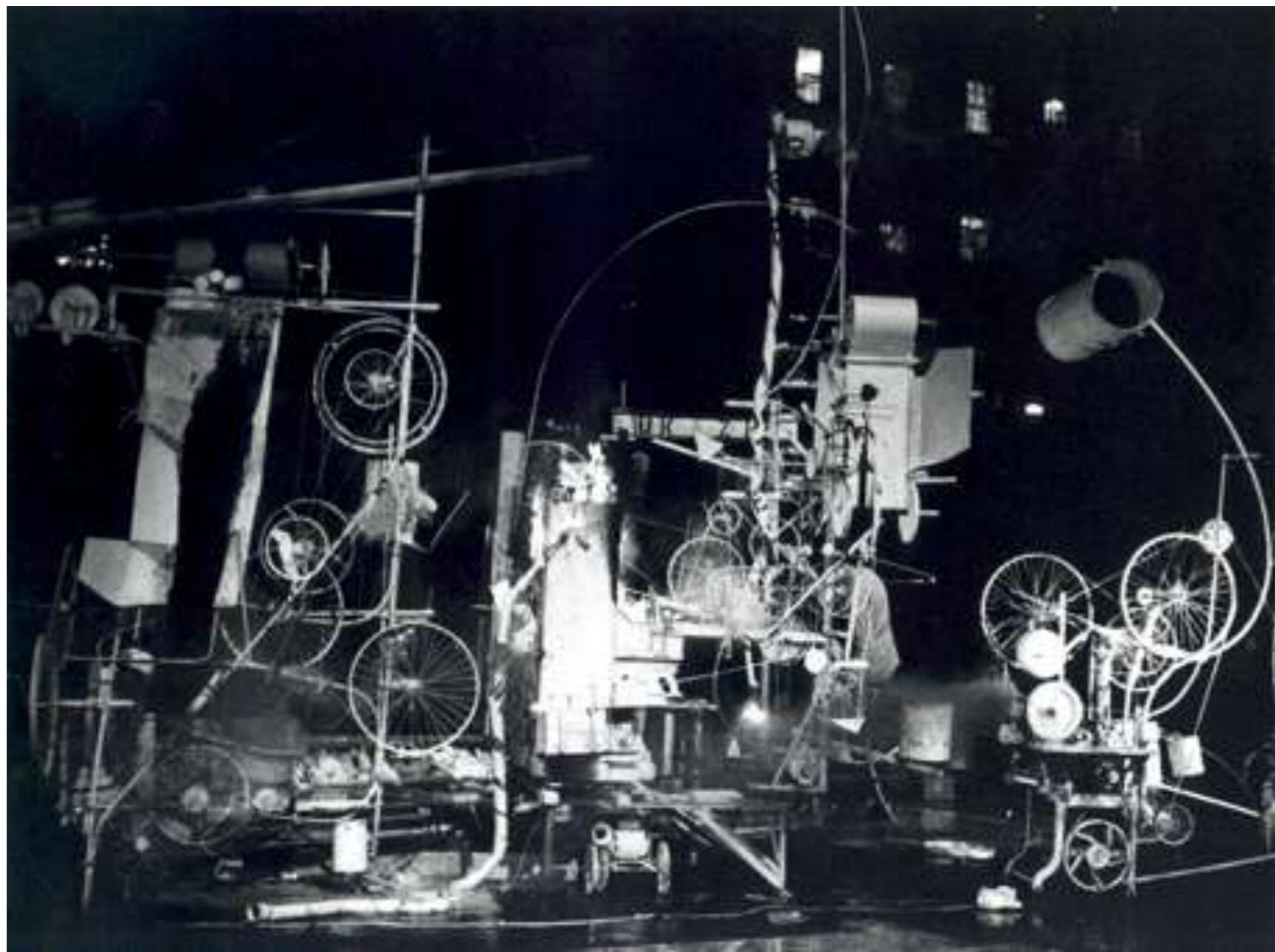


CHE COSA

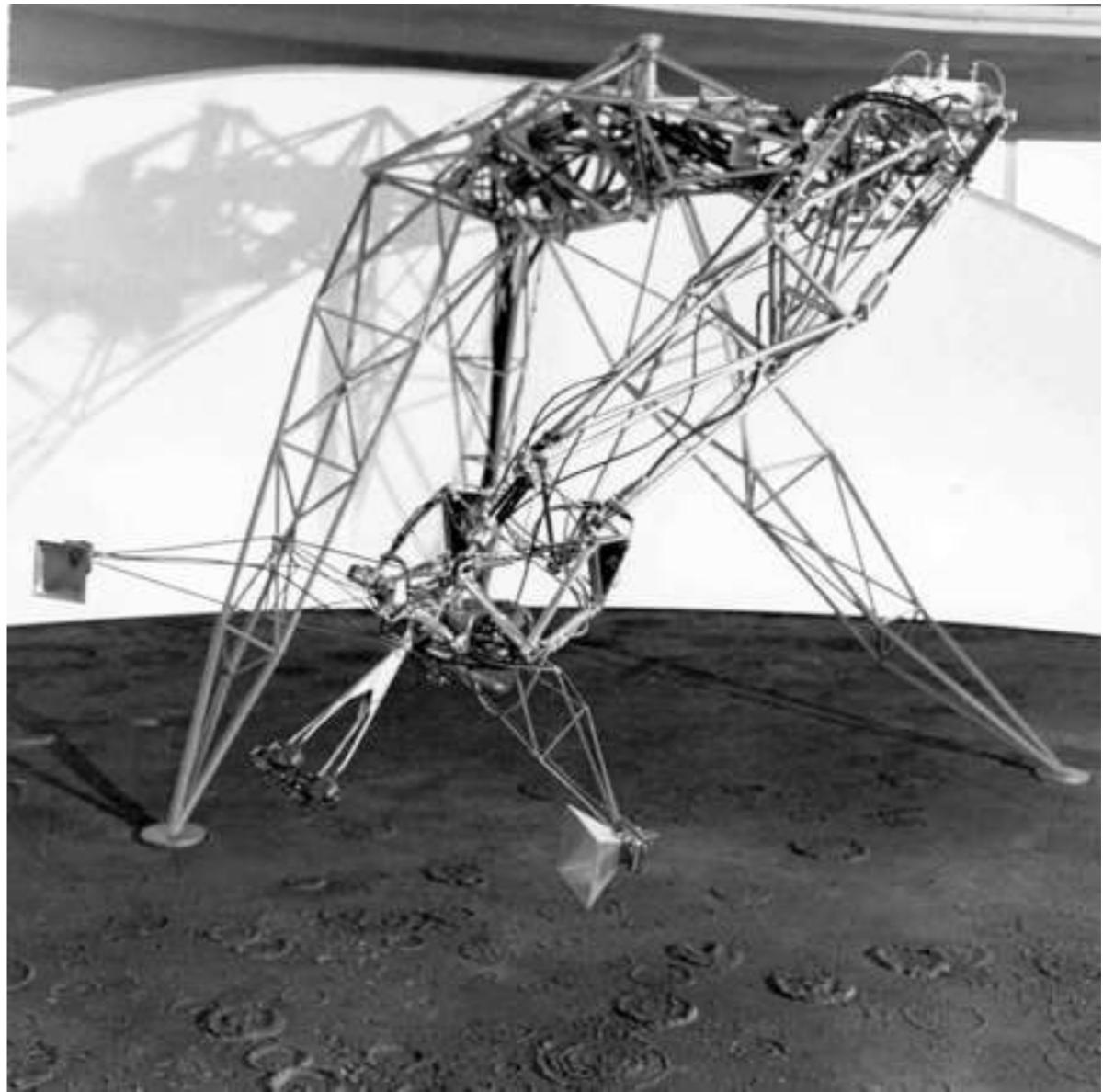
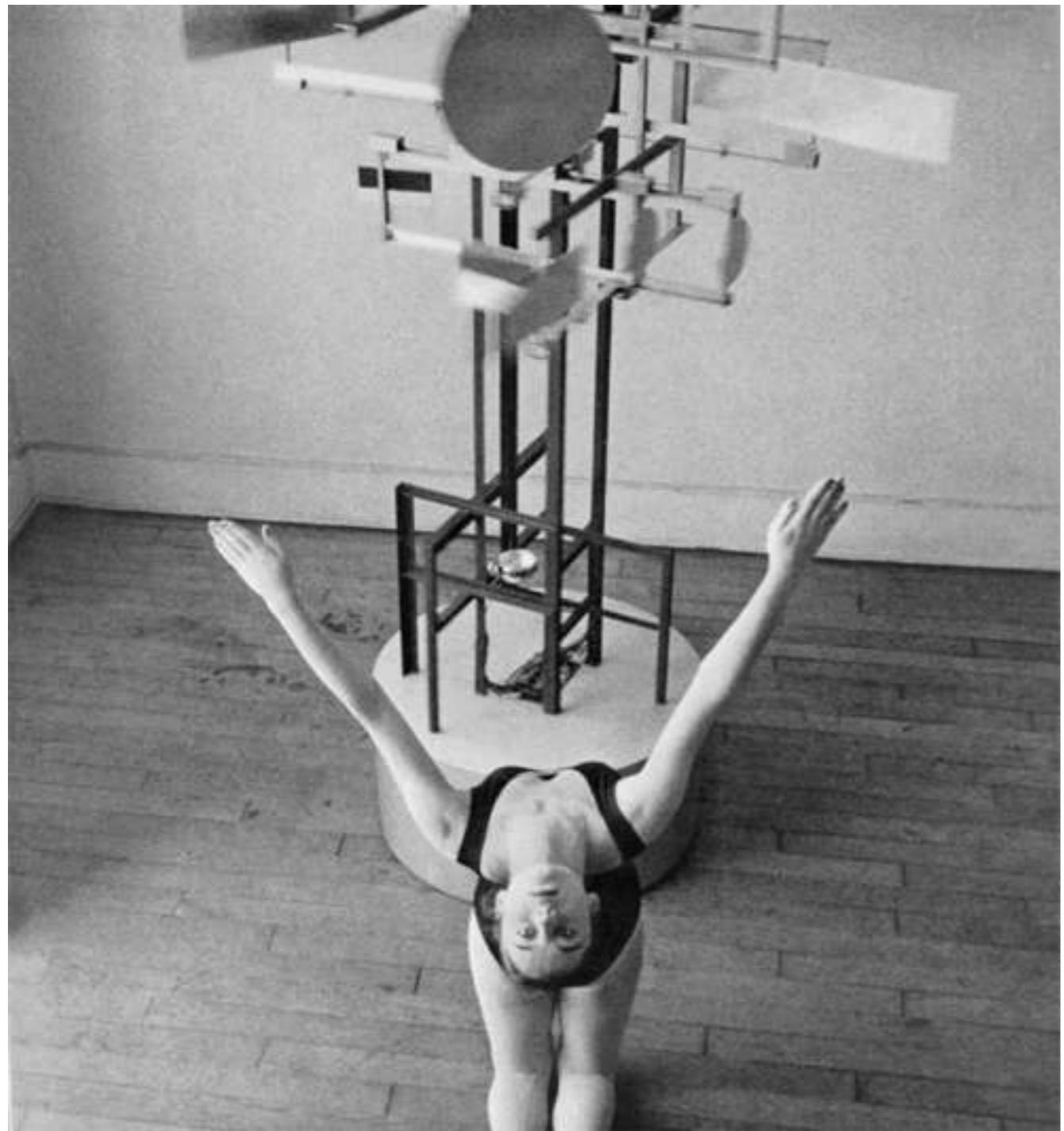
*Munari: macchina inutile
da giardino n. 21*

Munari: macchina inutile da soffitto n. 24 -
a sinistra: una piccola macchina inutile da tavolo n. 11





JEAN TINGUELY, Hommage to New York, 1960



**NICOLAS SCHOEFFER, CYSP 1, 1956
EDWARD IHNATOWICZ, Senster, 1969**



ROBERT BREER, *Floats*, 1970
Installation view: Osaka Pavillion, 1970





ROBERT BREER, *Floats*, CAPC, Bordeaux, 2009



The Useless Machine, Marvin Minsky, 1952



“There is something unspeakably sinister about a machine that does nothing —absolutely nothing — except to switch itself off”

Arthur C. Clarke, 1952



360° Presence, Jeppe Hein, 2002



360° Presence, Jeppe Hein, 2002



(In)Security Camera, Silvia Ruzanka, Ben Chang, Dmitry Strakovsky, 2003



CRISPIN JONES, *TIDY TABLE*, 2005

Three grand pianos slowly make their way through a large exhibition space, sometimes bumping into one another, separating and taking a new direction. These animate objects, which constitute *offroad* (2014), a work by the artist Céleste Boursier-Mougenot, appear to be living beings, each endowed with its own behavior.

They are perfect examples of behavioral objects, whose little-known history dates back to the avant-garde and the emergence of cybernetics. Today, through experimentation merging robotics with the notion of animism, this category of object is increasingly present in art and design.

But what exactly is a behavioral objects? How can it be analyzed, understood, theorized, experienced, and how can we conceive of works that possess the faculty of action and reaction to their environment and public?

Through examining three works by Céleste Boursier-Mougenot, this book launches into answering these questions, thus defining a new field of research and practice.

BEHAVIORAL OBJECTS 1

A CASE STUDY: CÉLESTE BOURSIER-MOUGENOT

ISBN 978-3-95679-172-7



9 7 8 3 9 5 6 7 9 1 7 2 7

Sternberg Press

BEHAVIORAL OBJECTS 1

A CASE STUDY:
CÉLESTE BOURSIER-MOUGENOT

Edited by Samuel Bianchini & Emanuele Quinz

Behavioral Objects. A Case Study: Céleste Boursier Mougenot
S. Bianchini and E. Quinz (Eds.), Sternberg Press, Berlin - New York, 2016



CÉLESTE BOURSIER-MOUGENOT, *off road*, 2014
Perturbations, Les Abattoirs, Toulouse, 2014



CÉLESTE BOURSIER-MOUGENOT, *TransHumus*, 2015
révolution, Pavillon de la France / 56ème Biennale de Venise



CÉLESTE BOURSIER-MOUGENOT, *TransHumus*, 2015
révolution, Pavillon de la France / 56ème Biennale de Venise



CÉLESTE BOURSIER-MOUGENOT, *TransHumus*, 2015
révolution, Pavillon de la France / 56ème Biennale de Venise

By creating a suspension between
animate and inanimate, between
organic and inorganic, between
artificial and living, or between
human and non-human, behavioral
objects are part of both real life and
fiction. They fascinate and at the
same time they disturb.

3 counter-examples







BEHAVIORAL OBJECTS

A triple negation:

BEHAVIORAL OBJECTS

A triple negation:

1- non-anthropo/zoo-morphic shape

BEHAVIORAL OBJECTS

A triple negation:

- 1- non-anthropo/zoo-morphic shape
- 2- non-determination by task, by useful goal

BEHAVIORAL OBJECTS

A triple negation:

- 1- non-anthropo/zoo-morphic shape
- 2- non-determination by task, by useful goal
- 3- non-exogenous power of moving

BEHAVIORAL OBJECTS

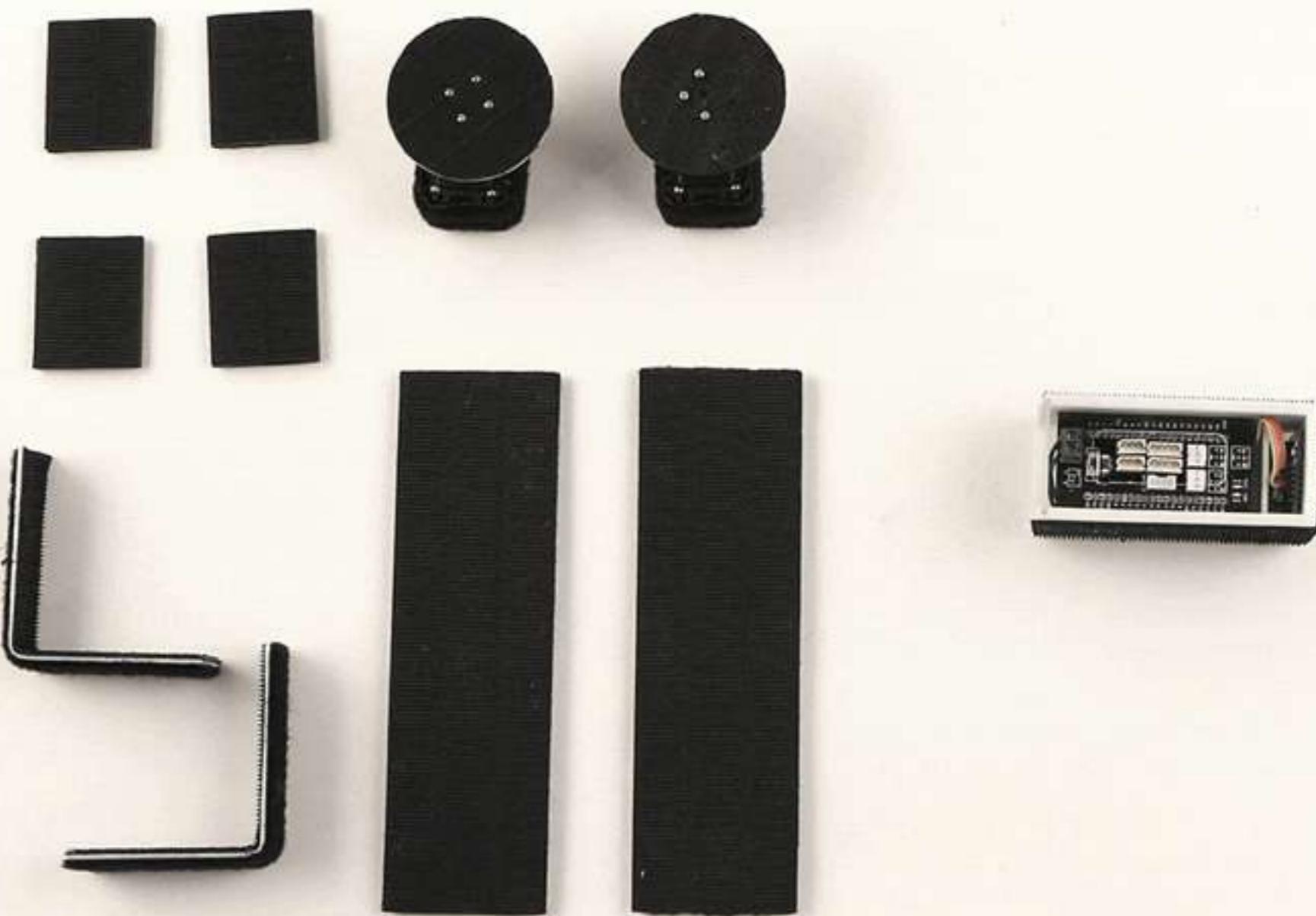
How to make / think them ?

MIS^ΦKIT





++



MisBKIT-2018-nov-20

misB KIT 3.0.3

CMD

MIDI

OSC

LUOS

ARDUINO

PYTHON

DMX

Connections

STOP ALL

Advanced

STOP ALL

Animations

STOP ALL

Sensors

STOP ALL

Script

STOP ALL

NEW

SCAN

NEW

LOAD ANIMATION

0

Wheel

0,0

1

Wheel

0,0

2

Wheel

0,0

3

Wheel

0,0

4

Wheel

0,0

5

Wheel

0,0

The screenshot shows the misB KIT 3.0.3 software interface. On the left, there's a vertical sidebar with buttons for CMD, MIDI, OSC, LUOS, ARDUINO, PYTHON, and DMX, and a 'Connections' section. The main area has tabs for 'Motors' (selected), 'Advanced', 'Animations', 'Sensors', and 'Script'. Under the 'Motors' tab, there are six entries, each representing a motor (0 through 5). Each entry includes a power button icon, a digital value (0), a circular control dial, a 'Wheel' button, a numerical value (0,0), and a small gear icon.

Workshops

Workshops

Research

Student

Children

— Research workshops

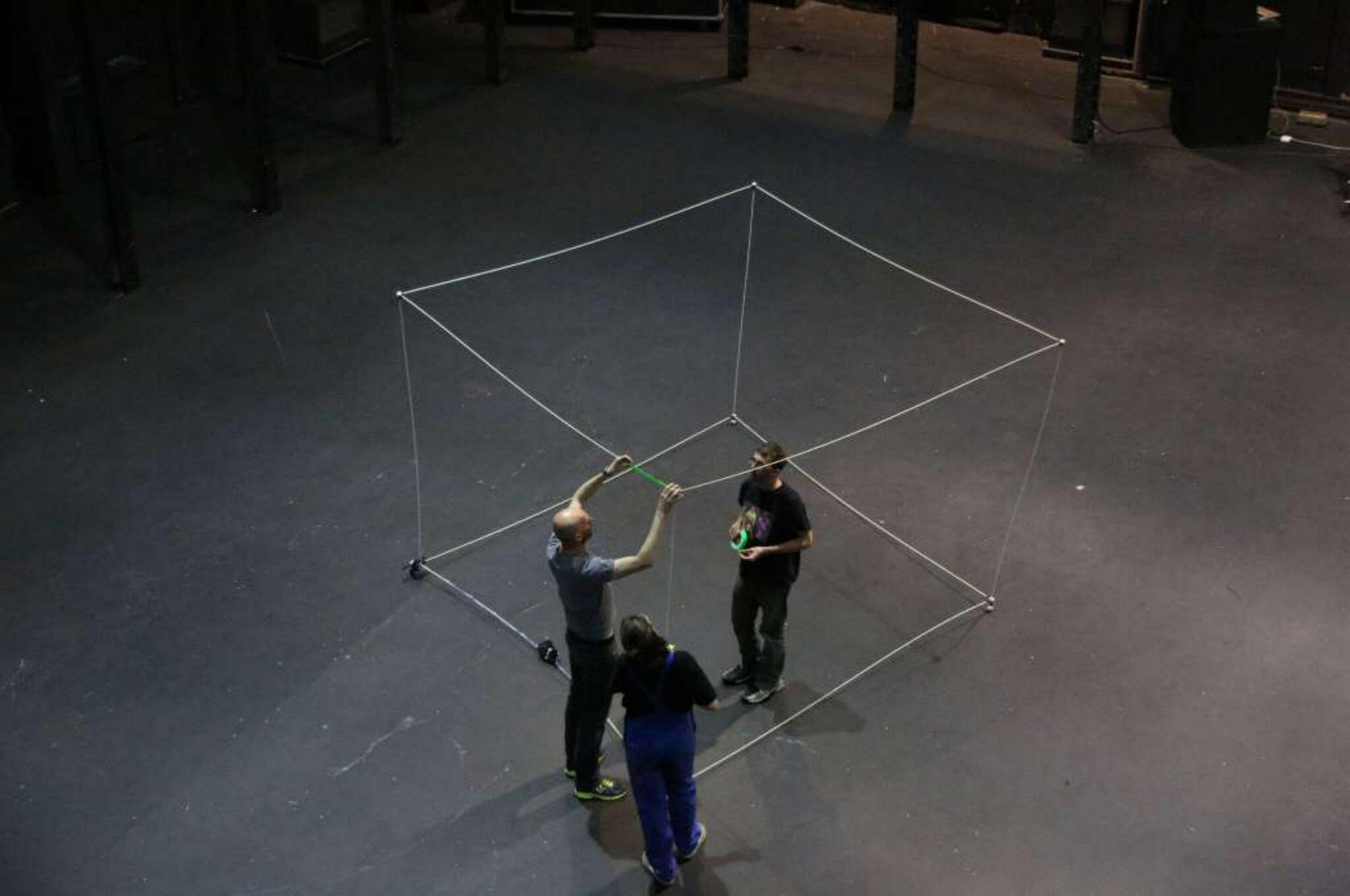


WORKSHOP BEHAVIORAL OBJECTS / BEHAVIORAL MATTER
MAI 2018, ENSAD, PARIS

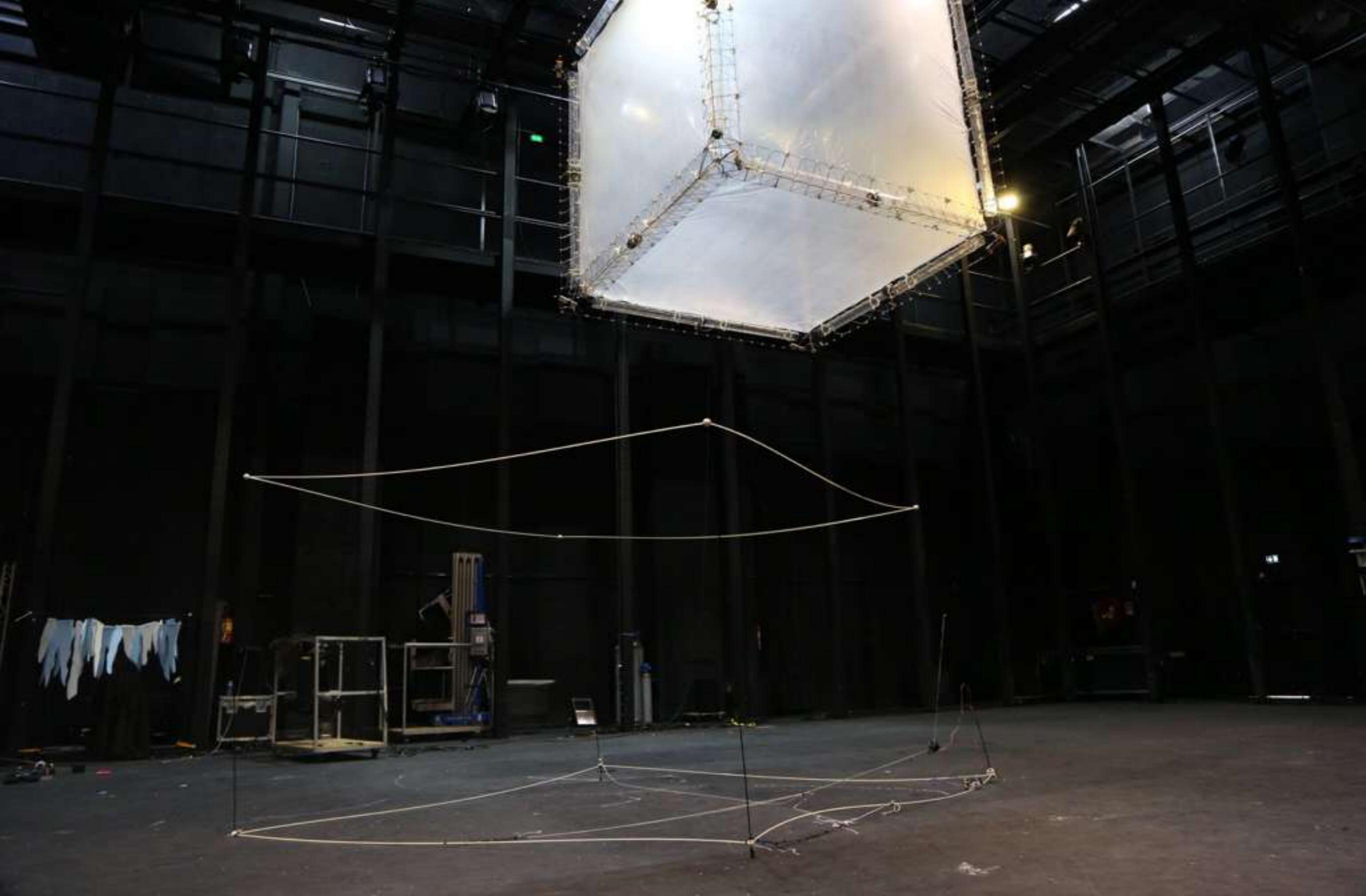




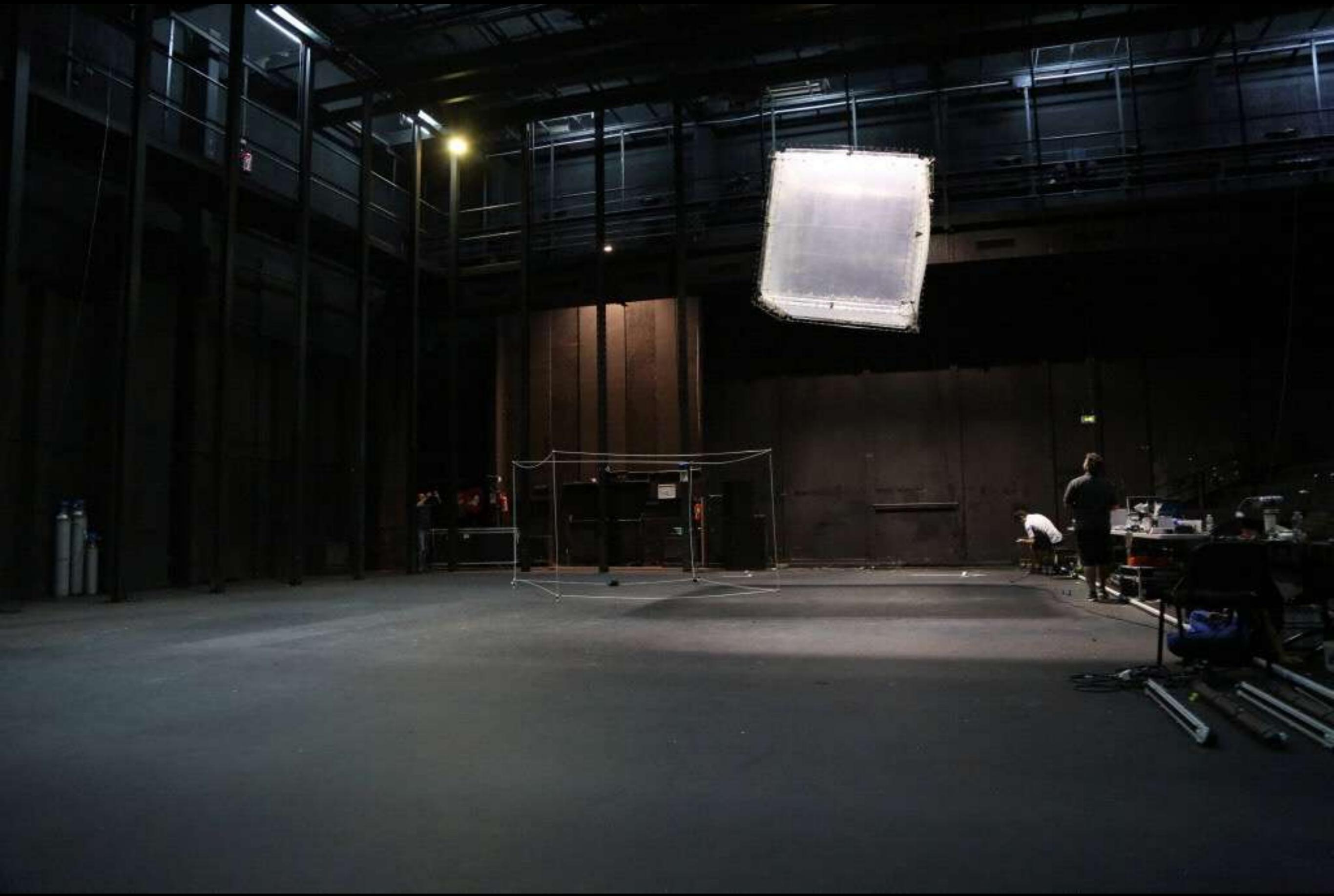




OBJETS À COMPORTEMENTS
Théâtre Nanterre-Amandiers, Nanterre
July 6–12, 2015



OBJETS À COMPORTEMENTS
Théâtre Nanterre-Amandiers, Nanterre
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OBJETS À COMPORTEMENTS
Théâtre Nanterre-Amandiers, Nanterre
July 6–12, 2015

— Student workshops



OUT OF CONTROL

Interface Culture Master, Kunsthochschule Linz, Austria

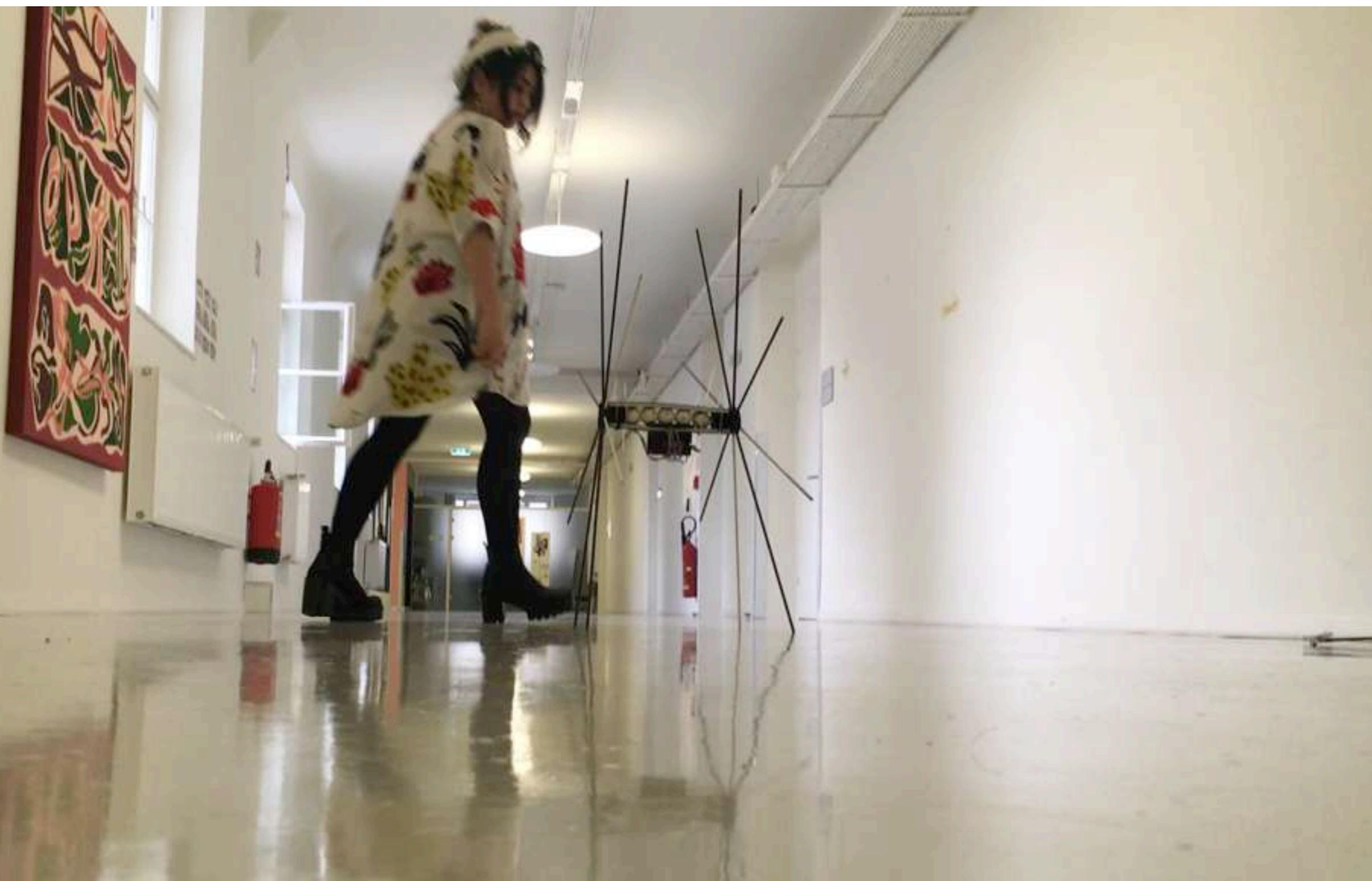
June 2017



SUPER ANNOYING OBJECT #2
OUT OF CONTROL Vol.2 WORKSHOP
Interface Culture Master, Kunsthochschule Linz, Austria
April 2018



***OUT OF CONTROL* Vol.2**
Interface Culture Master, Kunstuniversität Linz, Austria
April 2018



Experimentation session
OUT OF CONTROL Vol.2 WORKSHOP
Interface Culture Master, Kunsthochschule Linz, Austria
April 2018

— Children workshops











OBJETS À COMPORTEMENTS

Design Days, Bastille Design Center, Paris, June 4, 2016

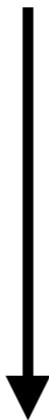


Maximum®
Maximum®
Maximum®

Maximum®
Maximum®
Maximum®

Maximum®

Materials
Modularity
Flexibility
Adaptability
Quick understanding and use of the kit



Inventiveness
Imagination
Fantasy
Expression
Social Play
Understanding of materiality and programming

— Software

Misbehaviors toolkit

ANIMATION EVENTS

CM9 ON

Current port: COM13

Current baudrate: 115200

Animations Motors

HobbleAlong REC

Load animation ▾

	Play	Loop	Progress	Speed
X GoForward	▶	LOOP	[progress bar]	1.0 +
X Hesitate	▶	LOOP	[progress bar]	1.0 +
X Wandering	▶	LOOP	[progress bar]	1.0 +
X Shake	▶	LOOP	[progress bar]	1.0 +
X Backward	▶	LOOP	[progress bar]	1.0 +
X HobbleAlong	▶	LOOP	[progress bar]	1.0 +

The screenshot shows the 'Misbehaviors toolkit' application window. At the top, there are tabs for 'ANIMATION' and 'EVENTS'. A red button labeled 'CM9 ON' is visible. Below it, the text 'Current port: COM13' and 'Current baudrate: 115200' are displayed. There are two main sections: 'Animations' (green background) and 'Motors' (dark red background). Under 'Animations', a red bar labeled 'HobbleAlong' is active, indicated by a red 'REC' button. Below this, a dropdown menu says 'Load animation ▾'. A list of six animations is shown with their preview grids and playback controls (Play, Loop, Progress bar, Speed slider): 'GoForward', 'Hesitate', 'Wandering', 'Shake', 'Backward', and 'HobbleAlong'. Each animation has a green 'Play' button, a blue 'Loop' button, a progress bar, and a speed slider set to 1.0.

Select serial port

Connexions

USB : cu.Bluetooth-Incoming-Port

ON

MIDI :

OFF

OSC : disabled

disabled

OFF

WebSocket :

disabled

OFF

Motors

START RECORDING ● 🔍 Animations

3 Joint 40.0

7 Wheel -526.1

1 Joint 88.0

0 Wheel 0.0

0 Wheel 0.0

0 Wheel 0.0

Nom de l'animation

?

-

-

-

-

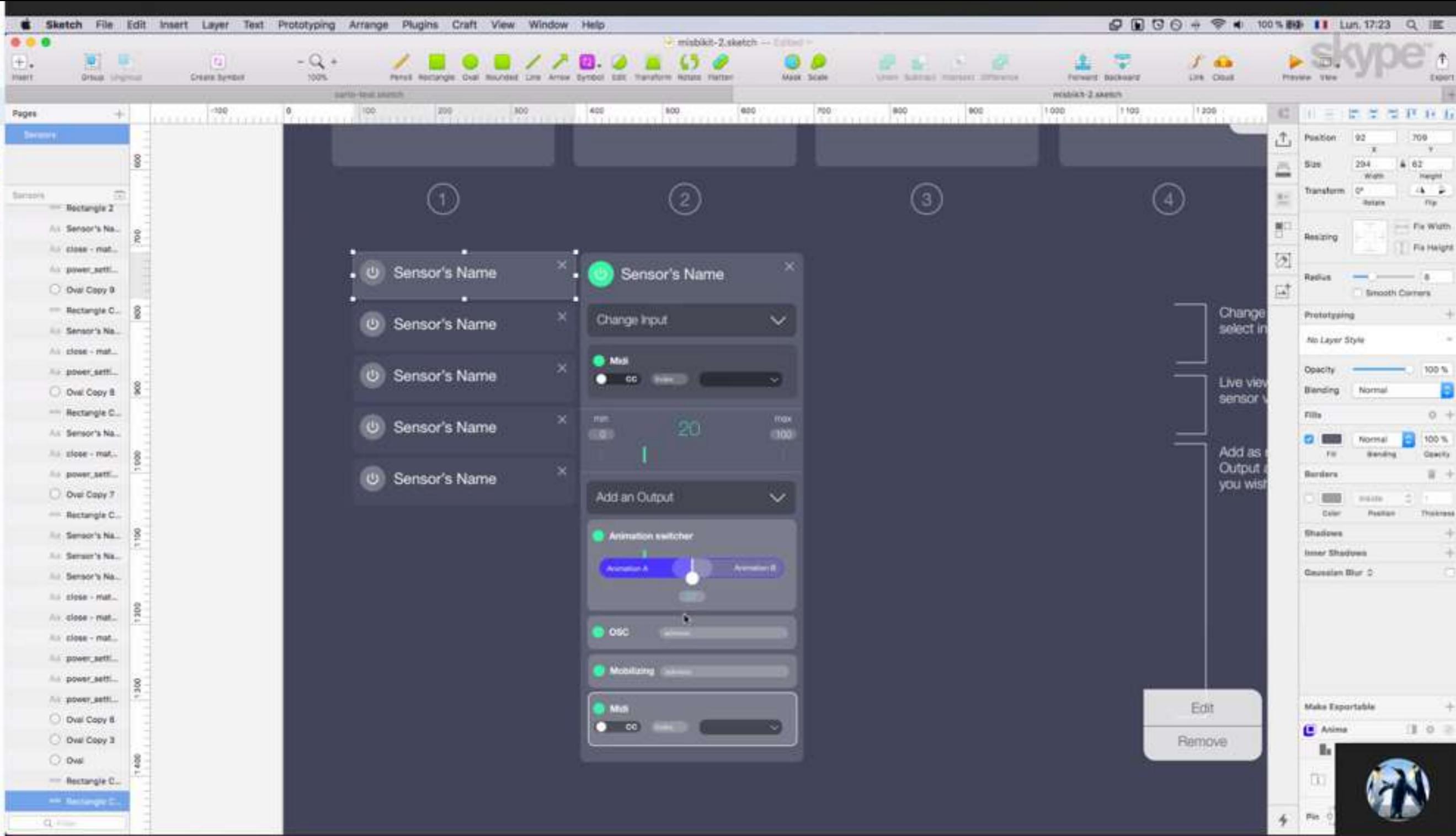
▶

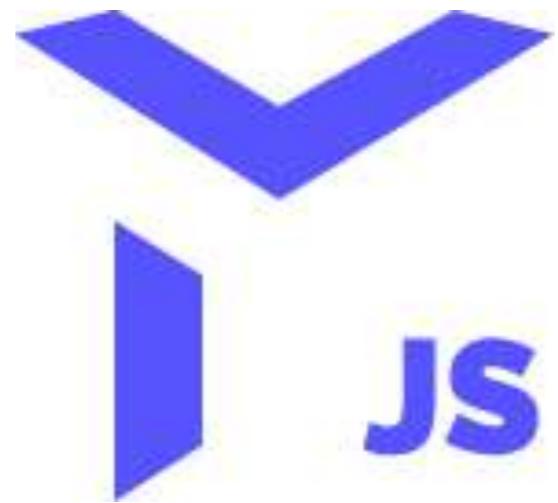
■

🔁

✖

Motor ID	Type	Value
3	Joint	40.0
7	Wheel	-526.1
1	Joint	88.0
0	Wheel	0.0
0	Wheel	0.0
0	Wheel	0.0





CMP

Motors STOP ALL

START RECORDING ●

Settings

Animations STOP ALL

Sensors STOP ALL

LOAD ANIMATION

MIDI

OSC

MIDI

Connexion

1

30

40

45

0

0

Joint

Joint

Joint

Joint

Joint

Joint

0,0

0,0

0,0

0,0

0,0

0,0

2018-04-20-19h37-50

2018-04-20-18h54-32

2018-04-19-18h26-39

CM9

Motors

Advanced mode

Animation

Sensors

Script

LOAD MOTOR

SAVE

LOAD

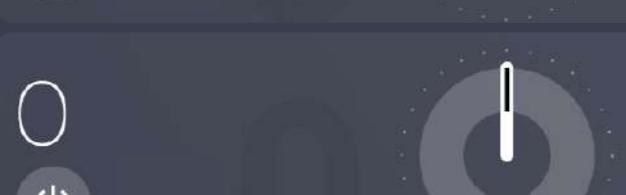
MIDI



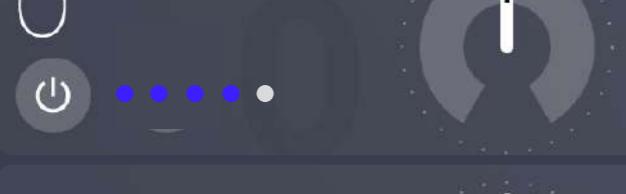
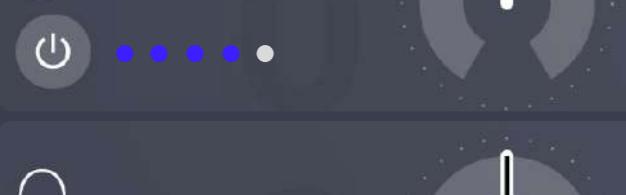
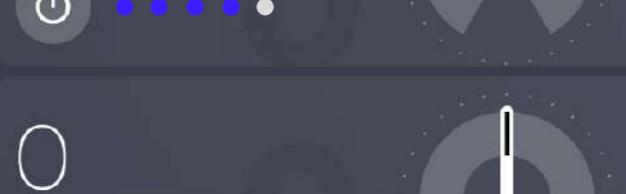
OSC



M.js



ROBIUS



NEW

CM9 to OCS
Midi to animation Switcher

CM9 to OCS
Midi to animation Switcher

CM9 to OCS
Midi to animation Switcher

Select your Input

Midi

CC

Slow

Index

Select your

Smoother

off

Value : 56

min

0

AUTO DETECT

35

max

100

Select output

Animation switcher

Animation A

35

Animation B

OSC

adresse

Edit

Remove

CM9

Motors

Advanced mode

Animation

Sensors

Script

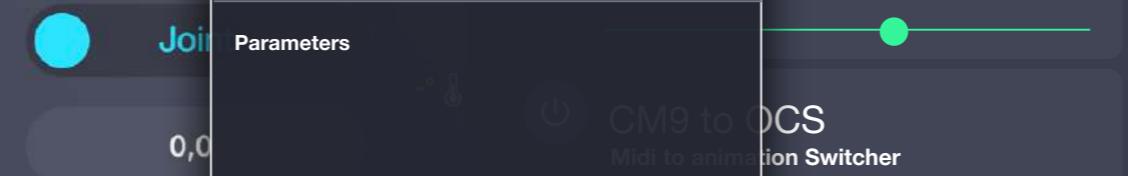
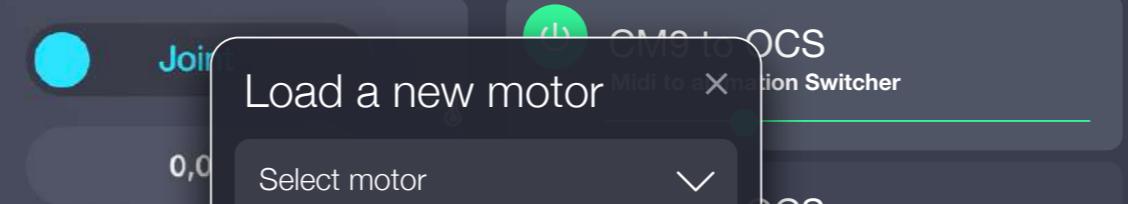
LOAD MOTOR

NEW

SAVE

LOAD

MIDI



Load a new motor

Select motor



Parameters

0,0

0,0

0,0

0,0

0,0

0,0

0,0

0,0

0,0

0,0

0,0

0,0

0,0

Select your Input

Midi

CC

Index Select your

Smoother

off

Value : 56

min

0

AUTO DETECT

35

max

100

Select output

Animation switcher

Animation A



Animation B

35

OSC

adresse

Edit

Remove

CM9

Motors

Script

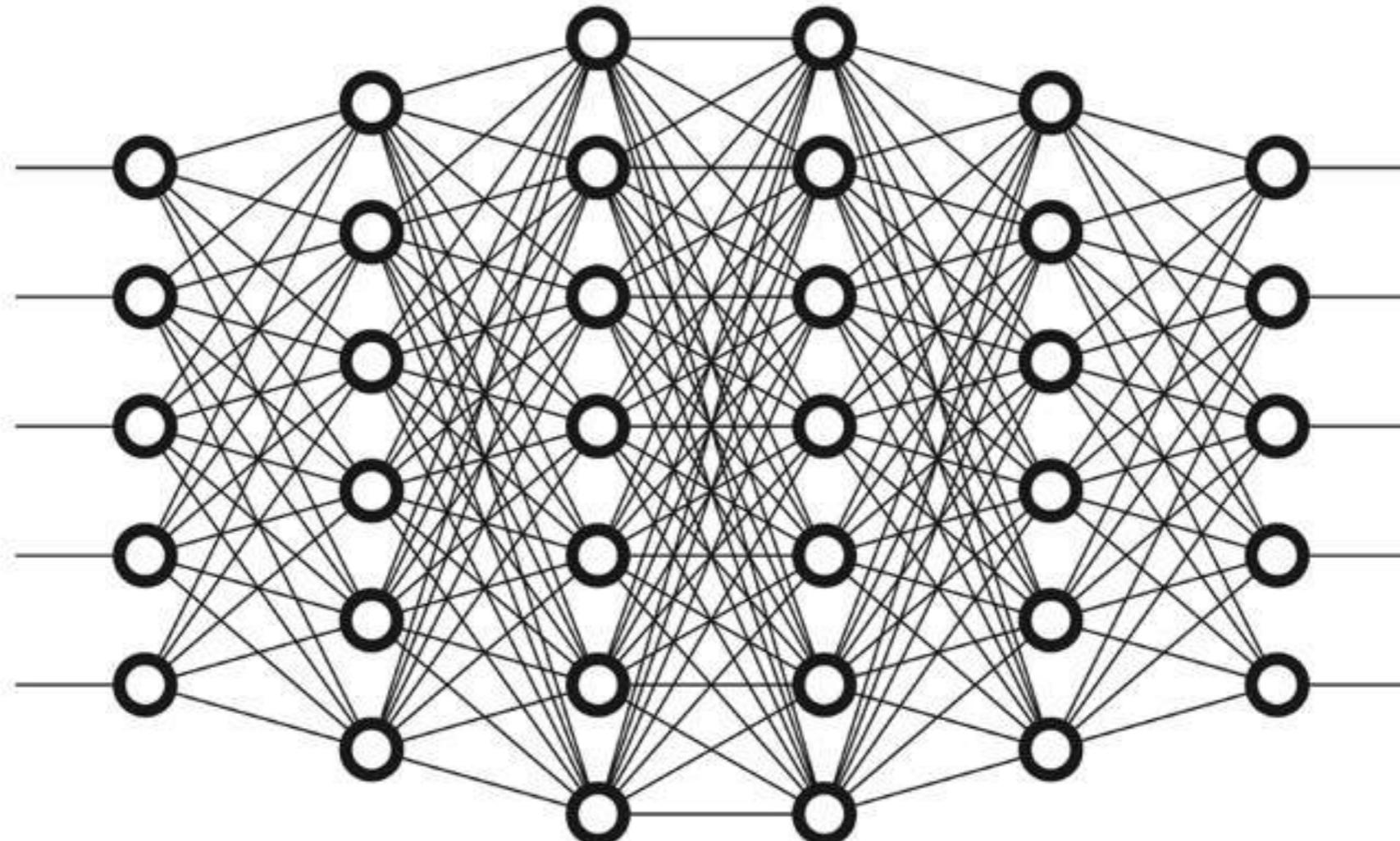
LOAD MOTOR

RUN

SAVE

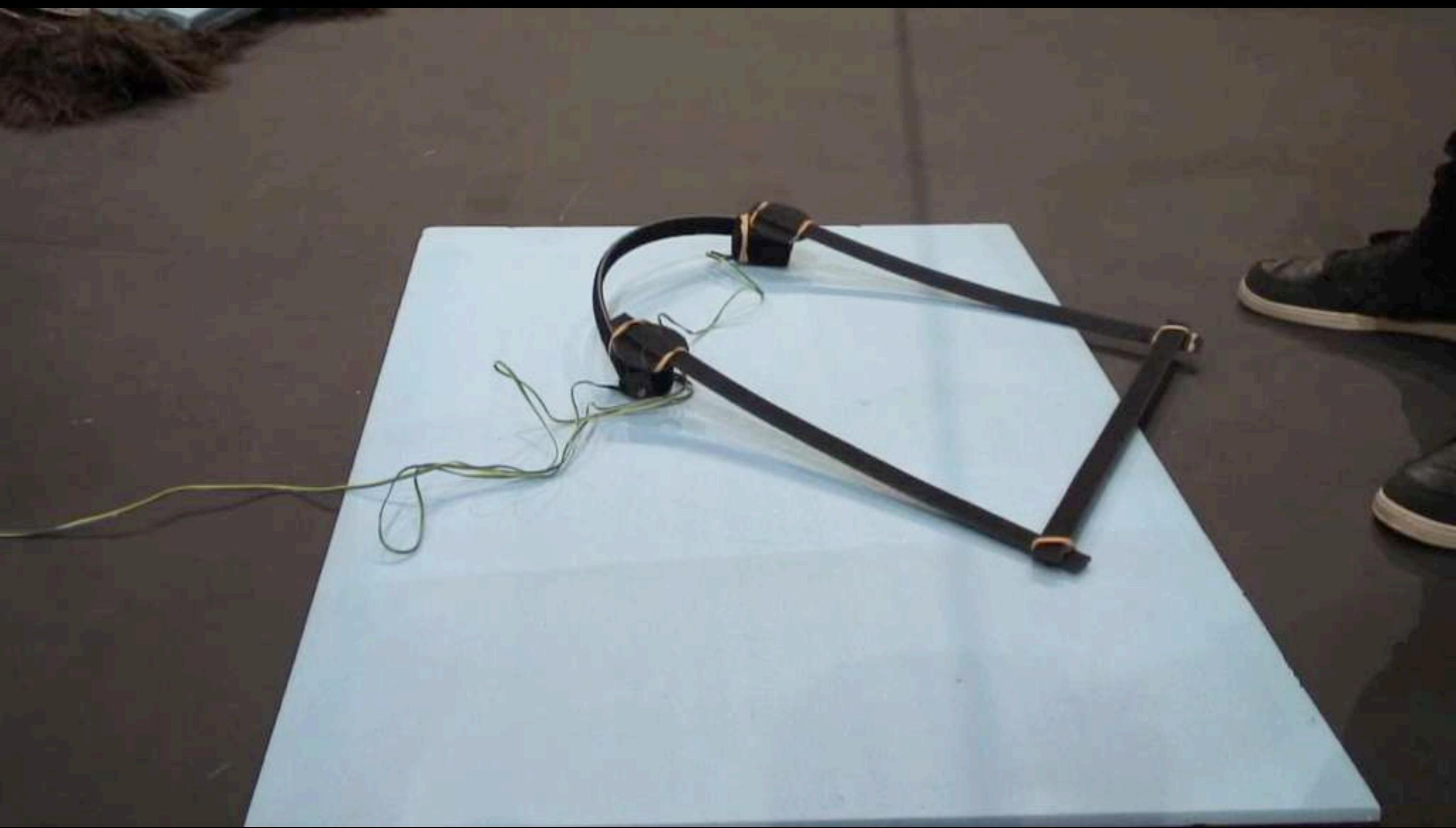
LOAD

```
22     frameheight: 700
23   });
24 */
25
26 $( "#opener" ).click(function() {
27   $( "#dialog" ).dialog( "open" );
28 });
29
30 var toggleAdvanced = false;
31 // Sortable Elements
32 $( "#sortable-anim" ).sortable();
33 $( "#sortable-anim" ).disableSelection();
34 //$( "#sortable-sens" ).sortable();
35 $( "#sortable-sens" ).sortable({
36   stop: function( event, ui ) {
37     console.log("sortable-sens stop");
38   }
39 });
40 $( "#sortable-sens" ).disableSelection();
41 //$( "#sortable-sens-output" ).sortable();
42 $( "#sortable-sens-output" ).sortable({
43   start: function(event, ui){
44     console.log("sortable-sens-output::start!!!");
45   },
46   stop: function( event, ui ) {
47     console.log("sortable-sens-output:stop!!!");
48   },
49 });
50 //$( "#sortable-sens-output" ).disableSelection();
51
52
53 //cf MisGUI  $("button.start-rec").bind("click", UIstartRec);
54
55 $("button.play").bind("click", UIplayAnim);
56 $("button.stop").bind("click", UIstopAnim);
57 $("button.loop").bind("click", UIloopAnim);
58
59
60 $("button.advanced").bind("click", function(){
61   misGUI.toggleAdvanced(toggleAdvanced);
62
63   if(toggleAdvanced){
64     UIhideAdvanced();
65   }else{
66     UIshowAdvanced();
67   }
68 })
69
70
71 function UIstartRec(){
72
73   console.log("UIstartrecording");
74
75
76   $("button.start-rec").css({
77     'border': '2px solid rgba(255, 24, 98, 1)'
78 });
79
80   $("button.start-rec").html("stop recording")
81
82   $("button.start-rec").css({
83     'animation-duration': '1s'
```



MISB LEARNING
COLLABORATION WITH SOFIAN AUDRY

— Projects



OBJETS À COMPORTEMENTS
Théâtre Nanterre-Amandiers, Nanterre
October 9–10, 2014



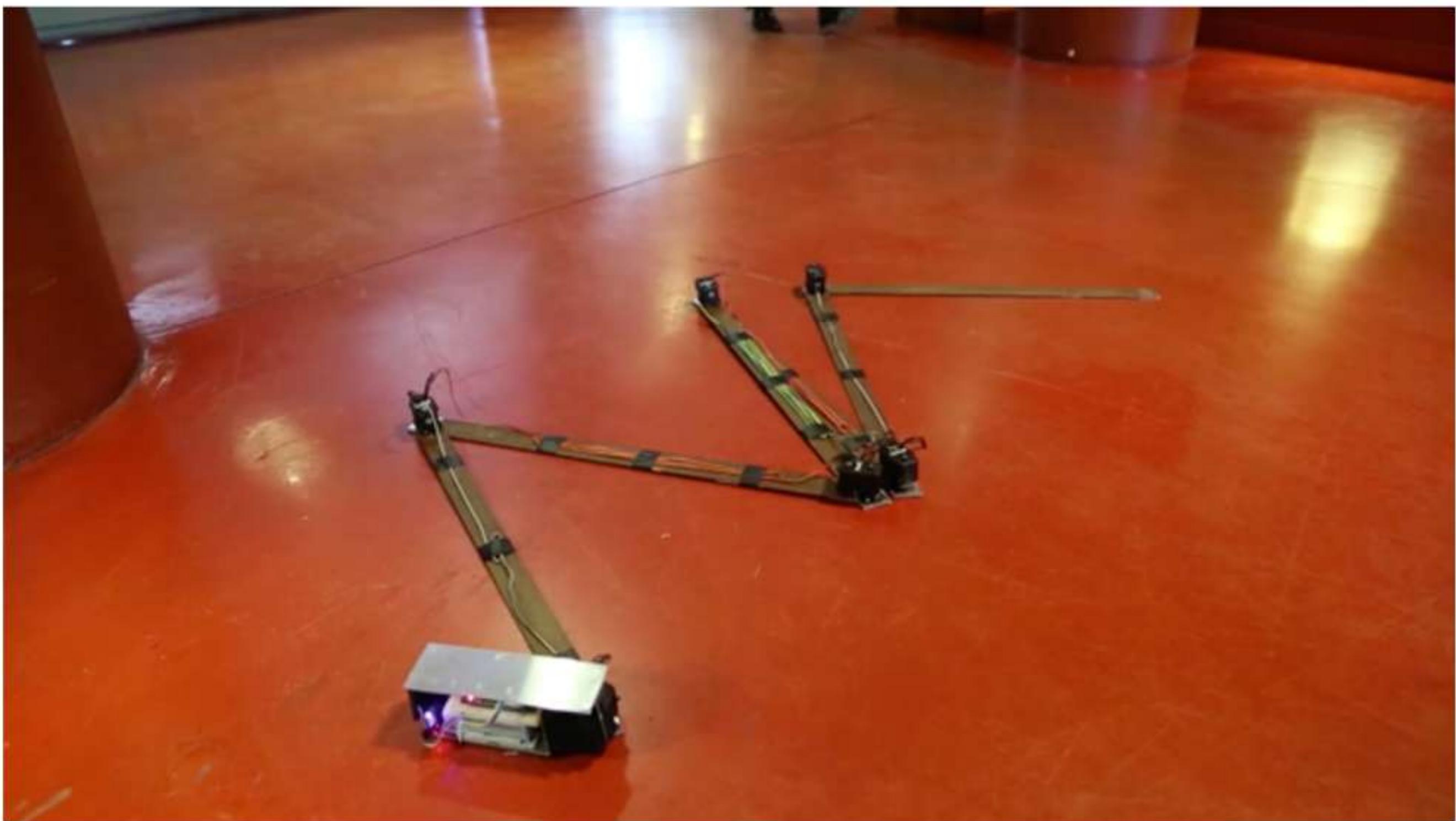
***Out of Frame*, 2015, Samuel Bianchini and Didier Bouchon
Ars Electronica, Campus Exhibition, Kunsthochschule Linz, september 2015**



Out of Frame, 2015, Samuel Bianchini and Didier Bouchon
Ars Electronica, Campus Exhibition, Kunsthochschule Linz, september 2015



1.0 — velcro prototype



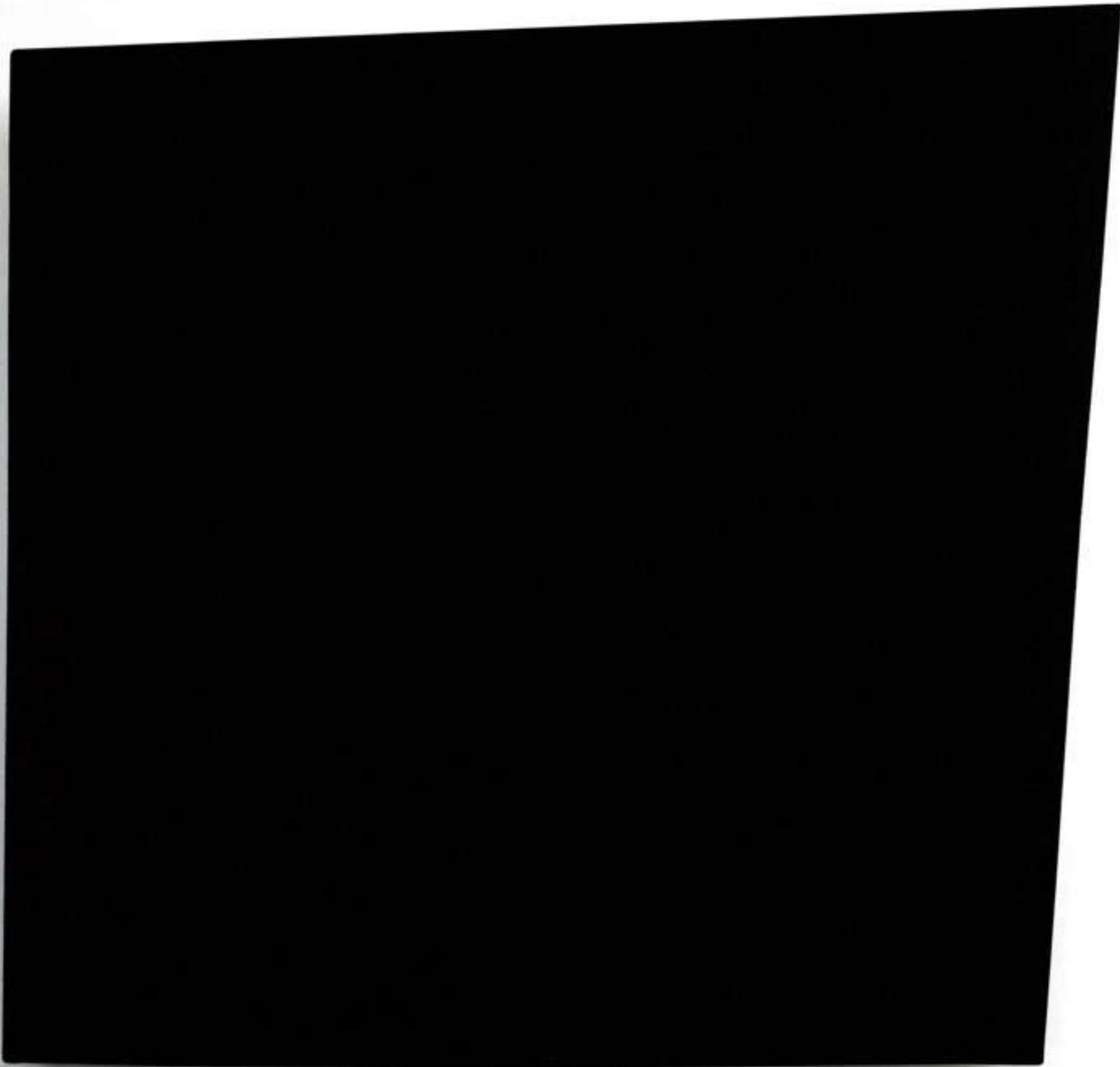
Mètre Métrologue, Benoît Verjat
2014, Ensad



Mètre Métrologue, Benoît Verjat
Ars Electronica, Campus Exhibition, Kunstuniversität Linz, septembre 2015



Bug Antenna
Raphaëlle Kerbrat, 2018



To be not perfect
Cécile Bucher, 2018



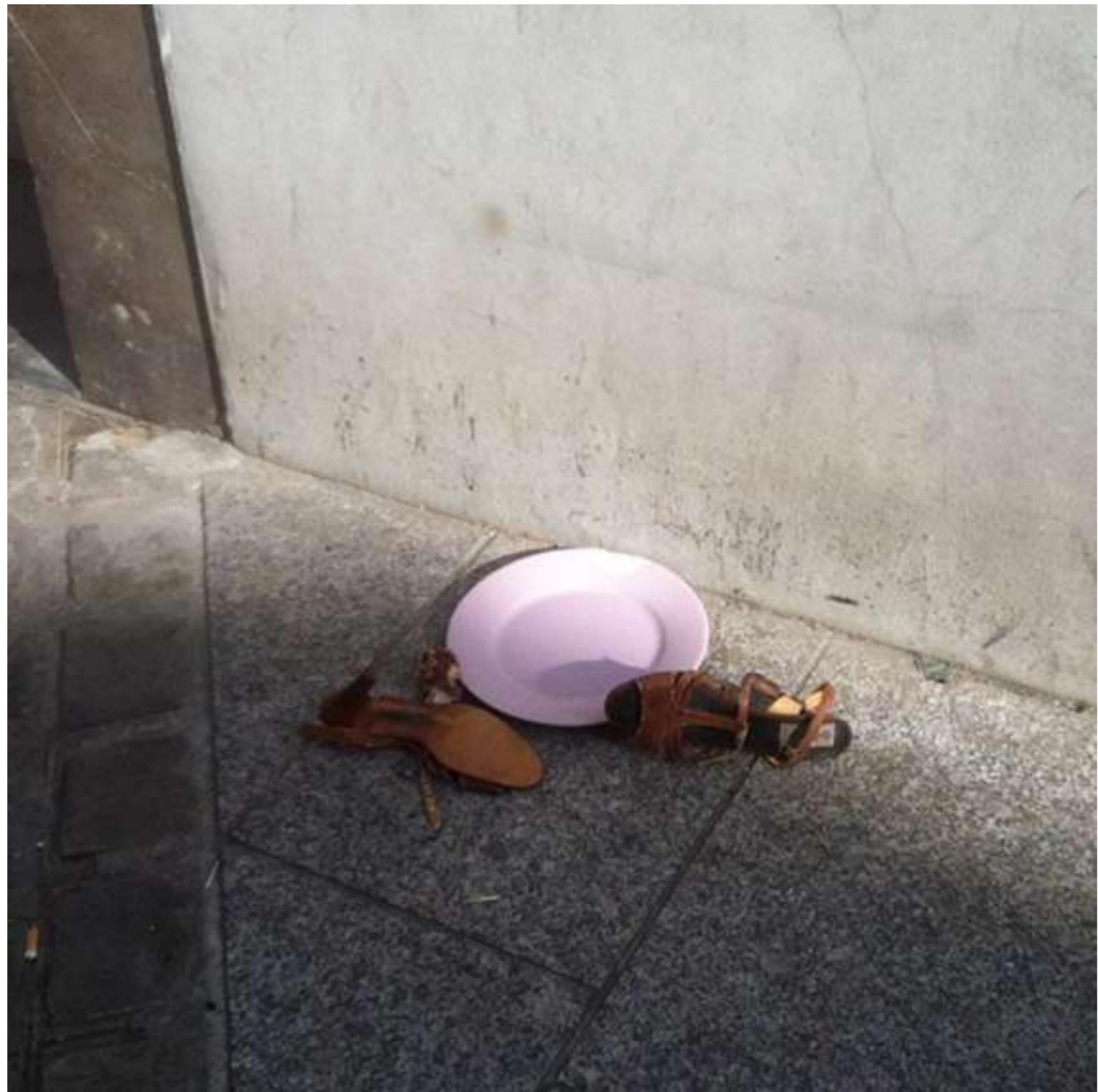
Unidentified 001
Aurelie Hoegy, 2018



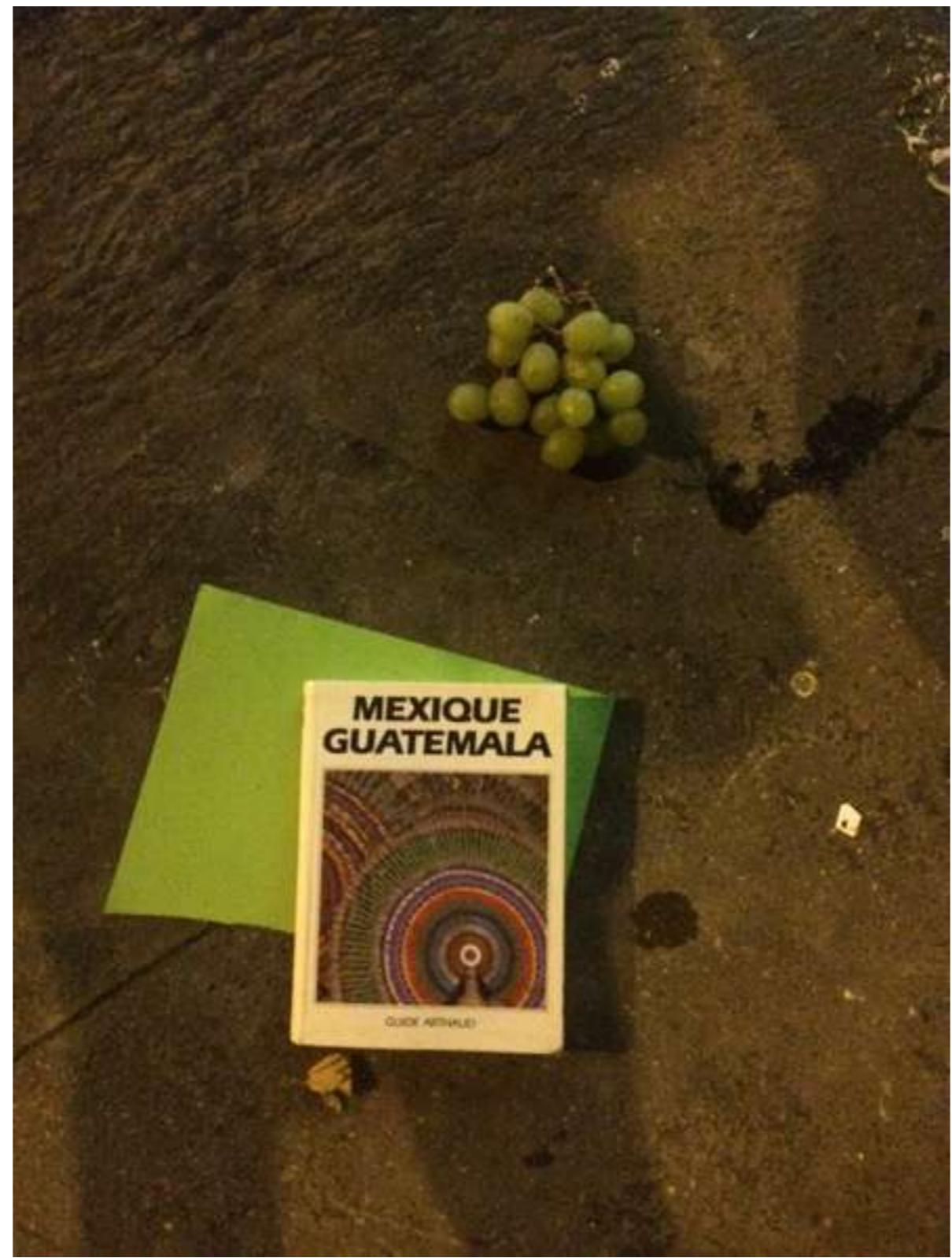
Ma tête est ensanglantée mais insoumise
Selma Lepart, 2018

GOR
GROUPE DES OBJETS RÉvolutionnaires
2017 — 2019







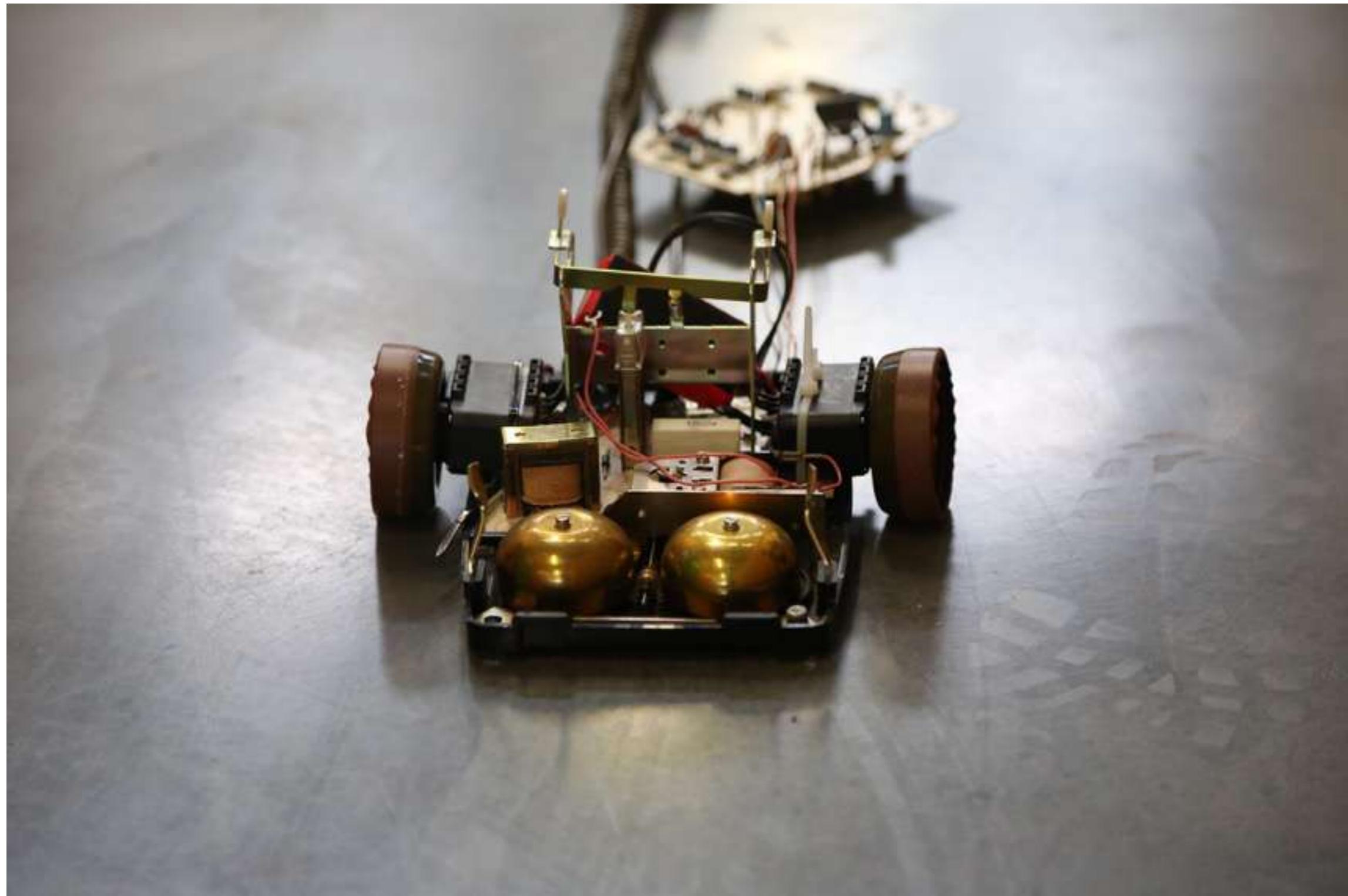






















GOR MANIFESTO

1.

GOR est le groupe des objets révolutionnaires.

“Révolutionnaire” ne désigne pas ici la “disruption”, mais plutôt l’action politique radicale. Les objets révolutionnaires bouleversent les principes établis et se battent pour changer les valeurs de notre société.

2.

GOR engage une révolte par la fiction.
Les objets s’agitent, se déplacent, crient, s’exclament. Ils développent des langages pour raconter leur histoire.

3.

GOR organise des manifestations.
Expositions, ateliers, performances et vidéos renversent notre point de vue sur les choses, mettant en lumière nos productions matérielles en excès.

4.

GOR donne la parole aux restes, aux rebuts, aux laissés pour compte du monde non humain.

Les objets méritent d’être écoutés. Ils doivent pouvoir monopoliser l’attention des humains aussi longtemps que nécessaire.

5.

GOR soutient la révolte des objets abandonnés.

Toutes sortes de hacks, implants technologiques et détournements doivent être utilisés afin de donner aux objets abandonnés les armes pour agir et se manifester.

6.

GOR mobilise les objets de la rue afin qu’ils luttent pour leurs droits.

Les objets révolutionnaires possèdent une conscience écologique, se révoltent contre la production de masse, l’obsolescence programmée et la société de consommation.

Ils dénoncent l’entassement des objets abandonnés dans nos villes et campagnes, et le gaspillage incessant de matières premières.

7.

GOR exige des productions humaines qu’elles soient respectueuses de l’environnement.

Les objets doivent être conçus en prenant en compte les enjeux écologiques de notre ère. Il faut défendre les éco-algorithmes et les éco-réseaux.

8.

GOR lutte pour la prise en compte politique du non-humain.

GOR considère chaque objet comme une entité à part entière, égale à l’homme. Des soins particuliers doivent être adressés aux objets en fin de vie et le droit au recyclage doit être instauré. Chaque abandon d’objet par son propriétaire doit être sévèrement puni.

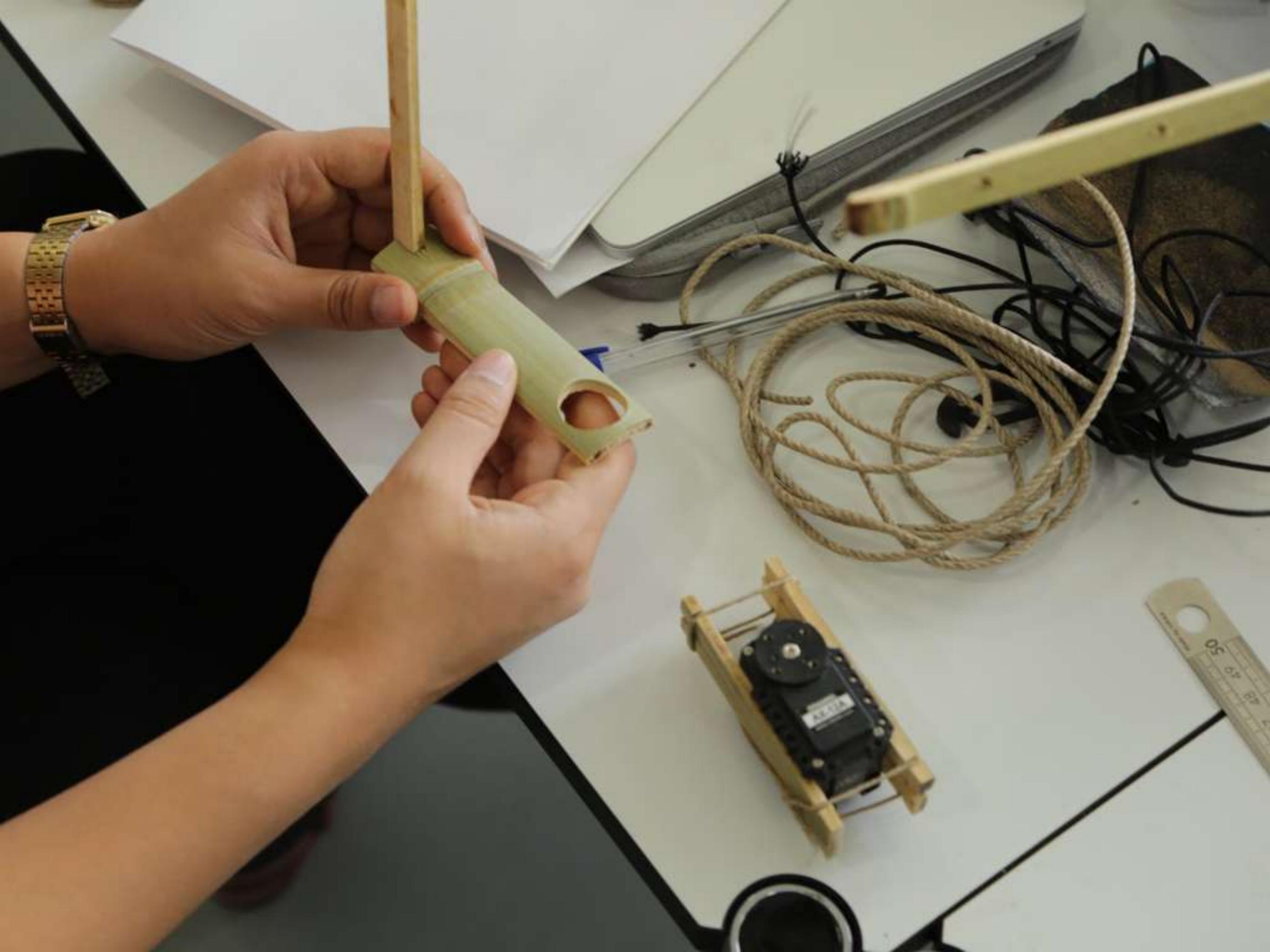
9.

GOR s’oppose à notre monde centré sur l’homme.

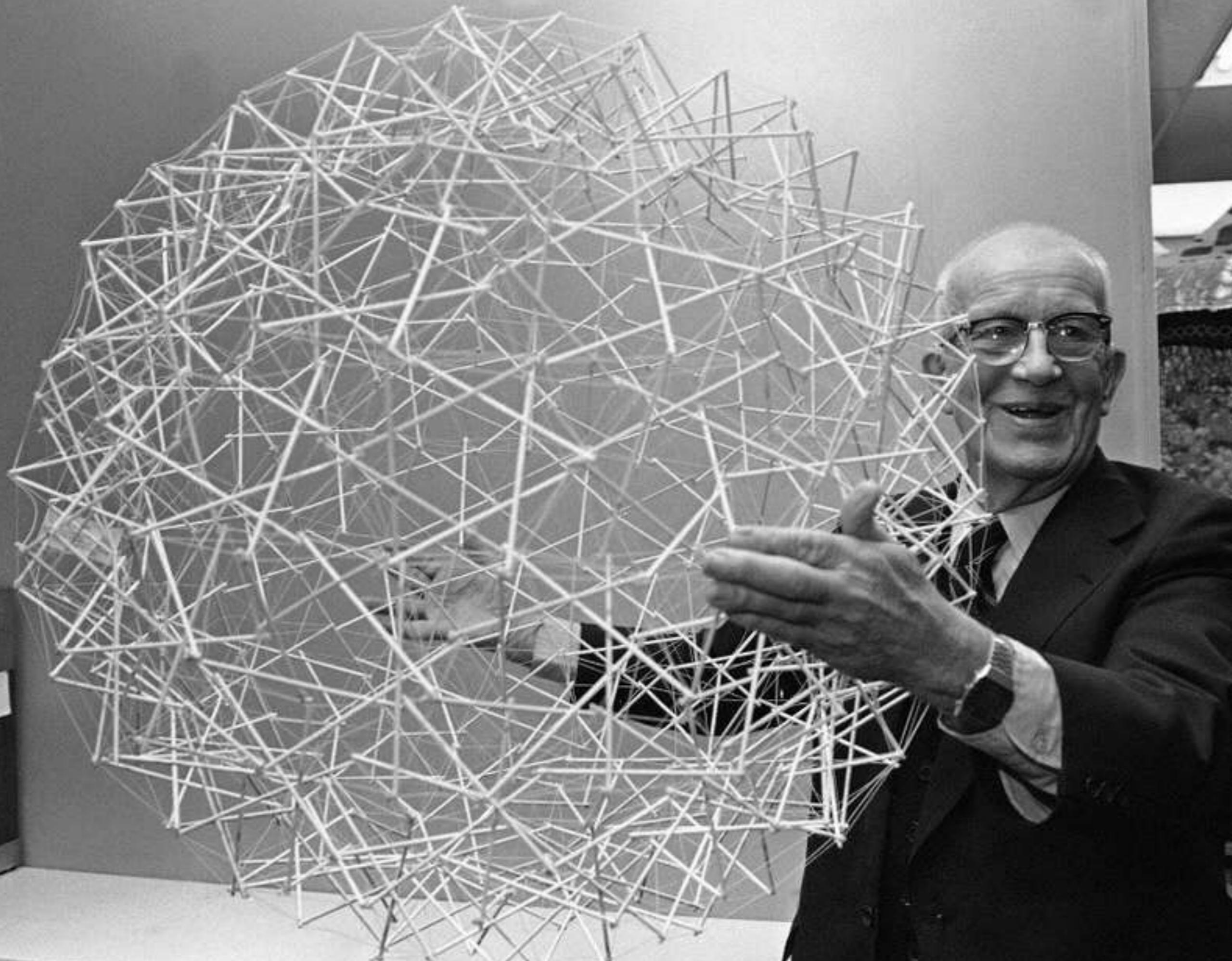
Les inégalités doivent cesser. Il faut trouver un équilibre entre l’homme, la nature et les choses.

— “Future Directions”











Ma tête est ensanglantée mais insoumise
Selma Lepart, 2018

Before actuation



Actuated



INTERFACING WITH LIVING MATTER

1- BIO-MIMETIC MACHINES

MATT SIMON SCIENCE 06.28.18 08:05 AM

SHARE

 SHARE
465 TWEET COMMENT EMAIL

HOW ROBOTICISTS ARE COPYING NATURE TO MAKE FANTASTICAL MACHINES



when it comes to locomotion.



***Out of Frame*, 2015, Samuel Bianchini and Didier Bouchon
Ars Electronica, Campus Exhibition, Kunsthochschule Linz, september 2015**

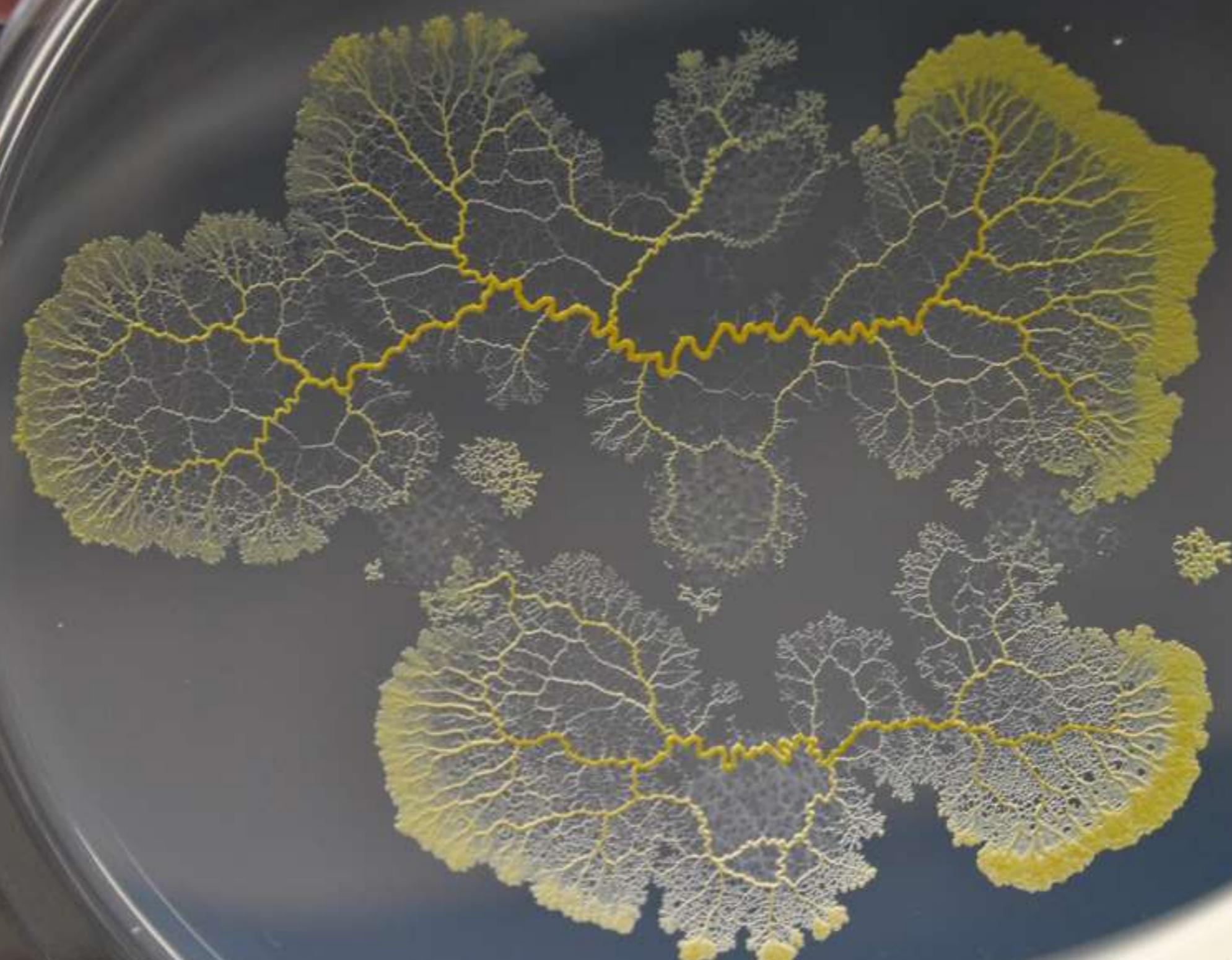


Mètre Métrologue, Benoît Verjat
Ars Electronica, Campus Exhibition, Kunstuniversität Linz, septembre 2015

2- HYBRID DISPOSITIFS



CÉLESTE BOURSIER-MOUGENOT, *TransHumus*, 2015
révolution, Pavillon de la France / 56ème Biennale de Venise



3- THE “WETWARE”

