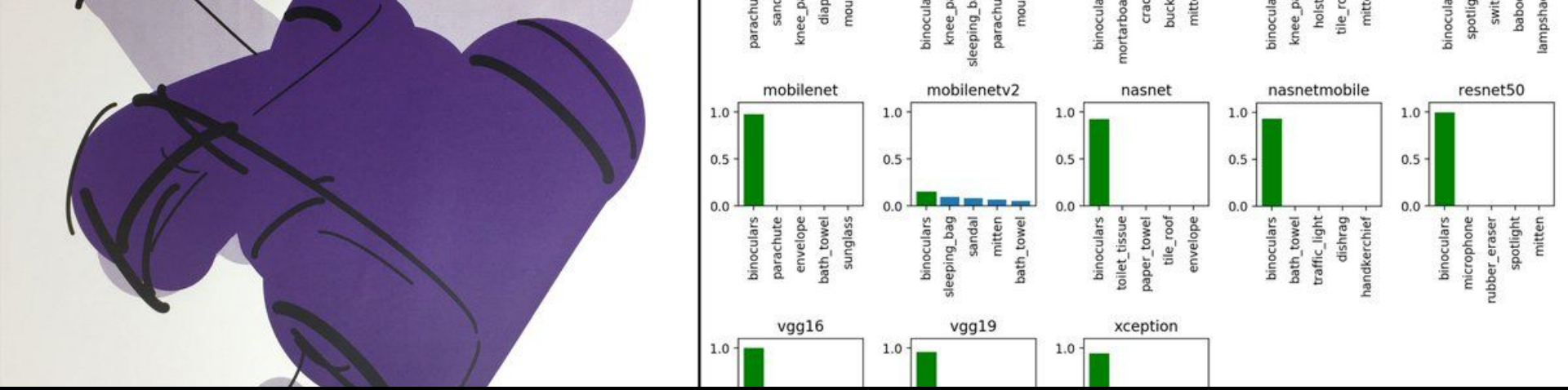


Tom White: Perception Engines

Sensing Machines

—

Art and Artificial Intelligence

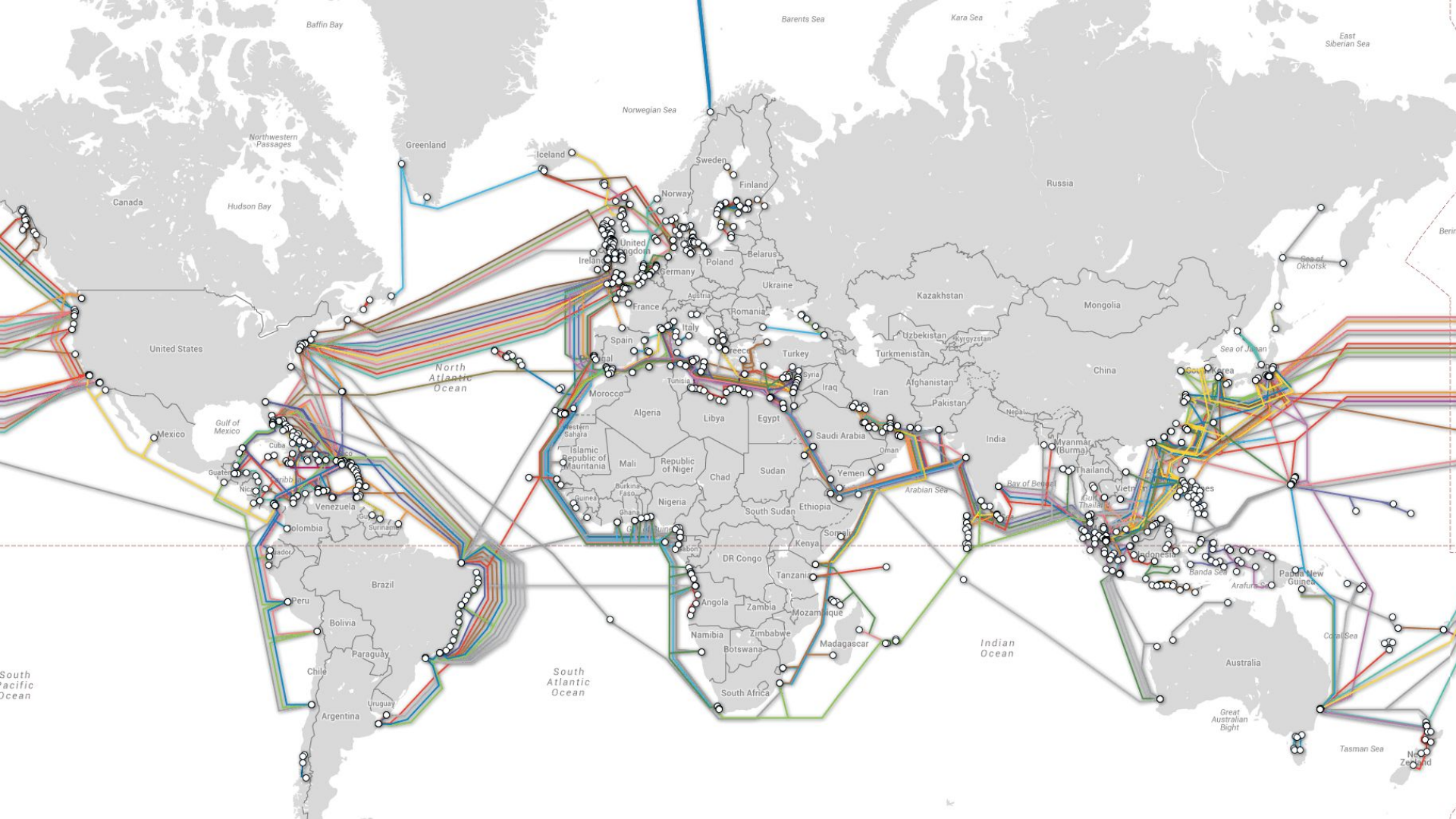
Kasperi Mäki-Reinikka
10.5.2019

Material nature of a machine

Tuomas A Laitinen

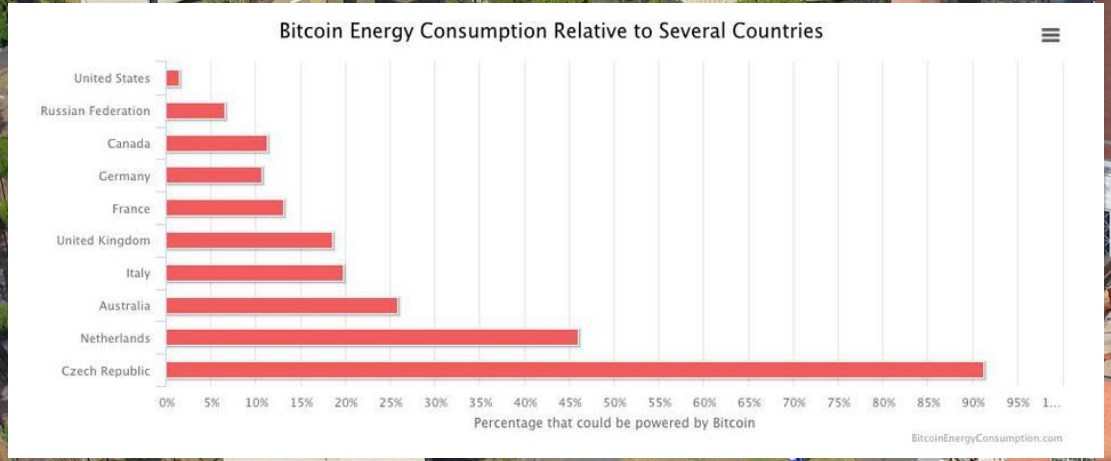
Conductor (2014-2015)

Conductor is examining the transformation and passages of matter and shifts in power structures of the world. In the core of the piece is copper, a material which has a long history ranging from alchemist traditions to being one of the core materials in contemporary life. Among other things, it is a conductor of elemental energy and indicator for economic transitions.


Baffin Bay
Barents Sea
Kara Sea
East Siberian Sea
Norwegian Sea
Northwestern Passages
Greenland
Iceland
Canada
Hudson Bay
Sweden
Finland
Norway
Russia
United Kingdom
Ireland
Belarus
Poland
Germany
Ukraine
Austria
France
Romania
Italy
Spain
Portugal
Greece
Turkey
Kazakhstan
Mongolia
Uzbekistan
Kyrgyzstan
Turkmenistan
Sea of Okhotsk
Sea of Japan
China
South Korea
Afghanistan
Pakistan
Iran
Iraq
Syria
Nepal
India
United States
North Atlantic Ocean
Gulf of Mexico
Mexico
Cuba
Morocco
Algeria
Tunisia
Libya
Egypt
Saudi Arabia
Oman
Yemen
Western Sahara
Islamic Republic of Mauritania
Mali
Republic of Niger
Chad
Sudan
Burkina Faso
Guinea
Ghana
Nigeria
Ethiopia
South Sudan
Kenya
Somalia
Gabon
DR Congo
Tanzania
Angola
Zambia
Mozambique
Namibia
Zimbabwe
Botswana
Madagascar
South Africa
Arabian Sea
Bay of Bengal
Myanmar (Burma)
Thailand
Vietnam
Gulf of Thailand
Indonesia
Banda Sea
Arafura Sea
Papua New Guinea
Coral Sea
Australia
Great Australian Bight
Tasman Sea
New Zealand
Indian Ocean
Venezuela
Guyana
Suriname
Colombia
Ecuador
Brazil
Peru
Bolivia
Paraguay
Chile
Uruguay
Argentina
South Atlantic Ocean
South Pacific Ocean

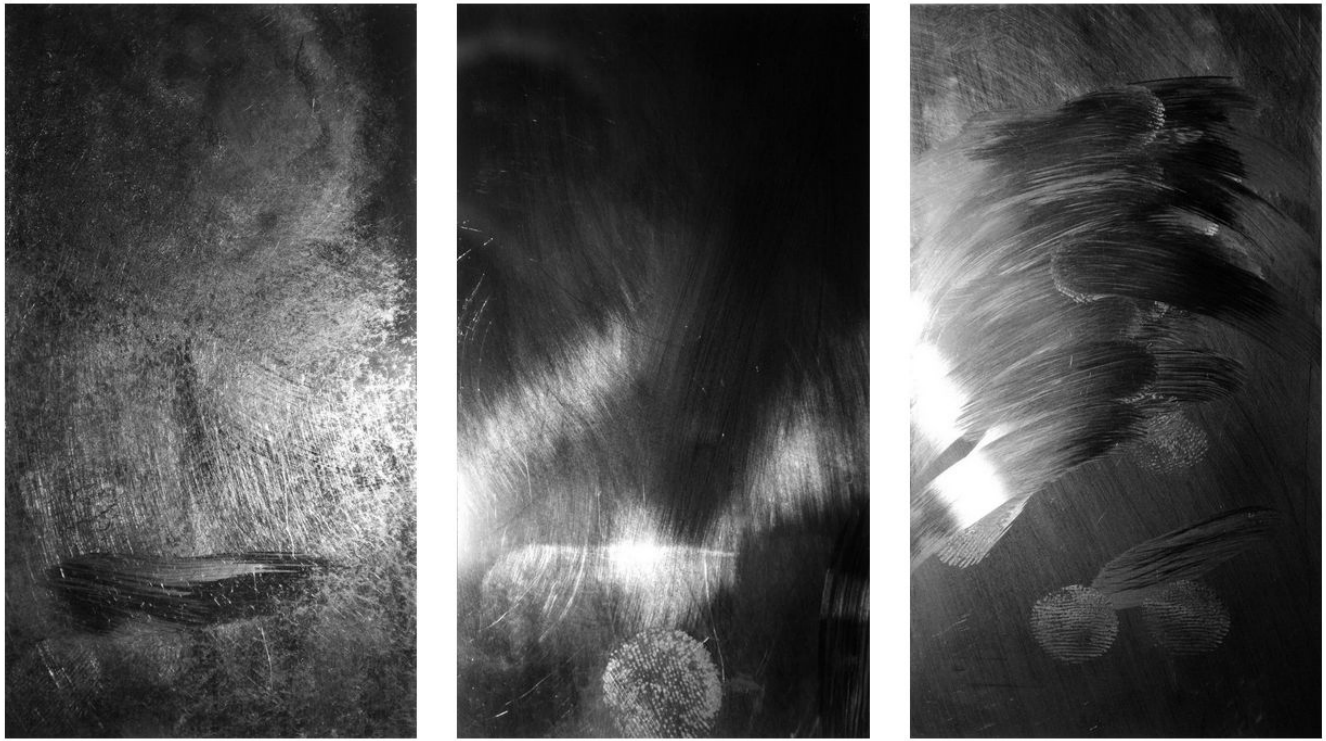
N&F

Energy Consumption



Bitcoin's current estimated annual electricity consumption is 61.4 TWh, which is also equivalent to 1.5% of the electricity consumed in the United States.

as of April 2018,
now approx. 57.6 TWh



Jake Elwes: Digital Caress (2015)

large format inkjet prints on aluminium sheet, 110x60cm

Exercise

Make a list of the materials, energy, workforce and lifespan of a technological device of your choosing.

Hito Steyerl

The City of Broken Windows

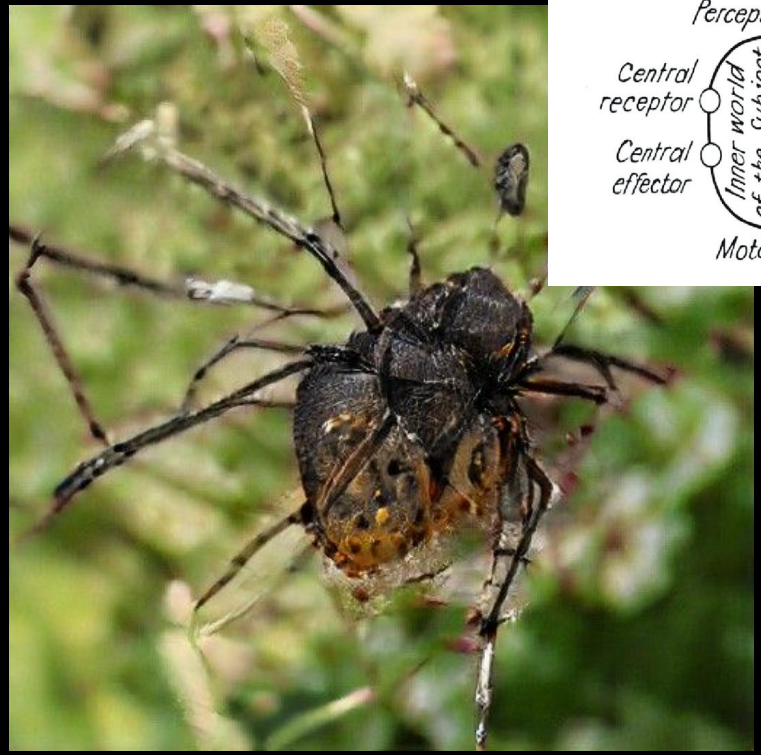
https://www.hkw.de/en/app/mediathek/video/69577

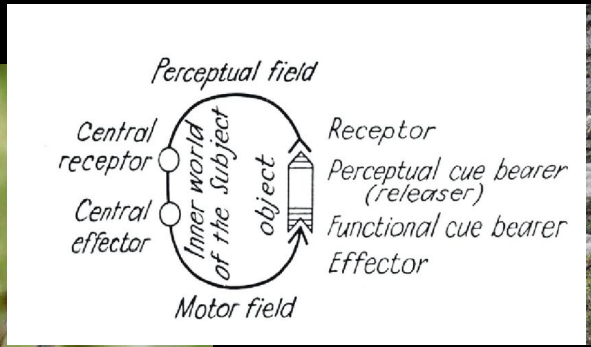
Exercise

Snowball

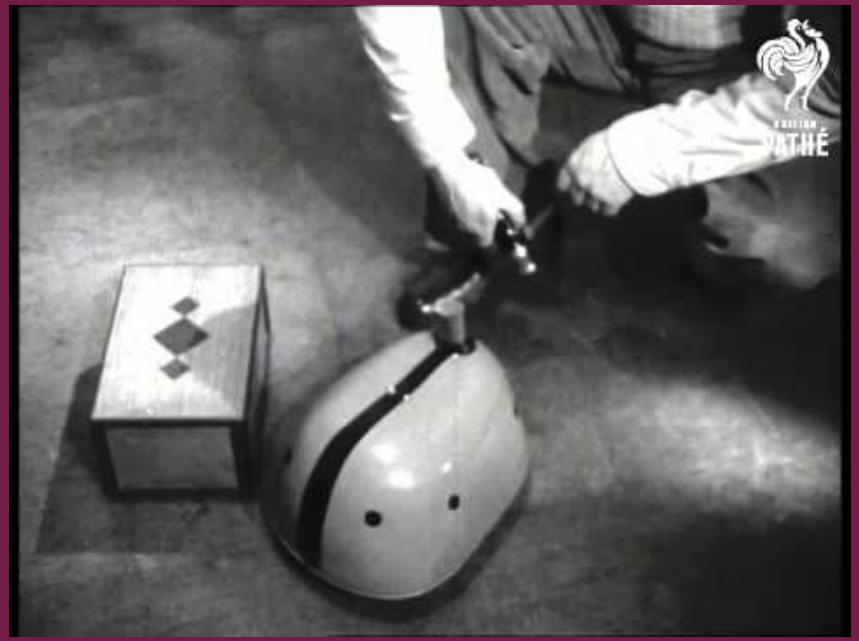
Sensory nature of a machine

UMWELT

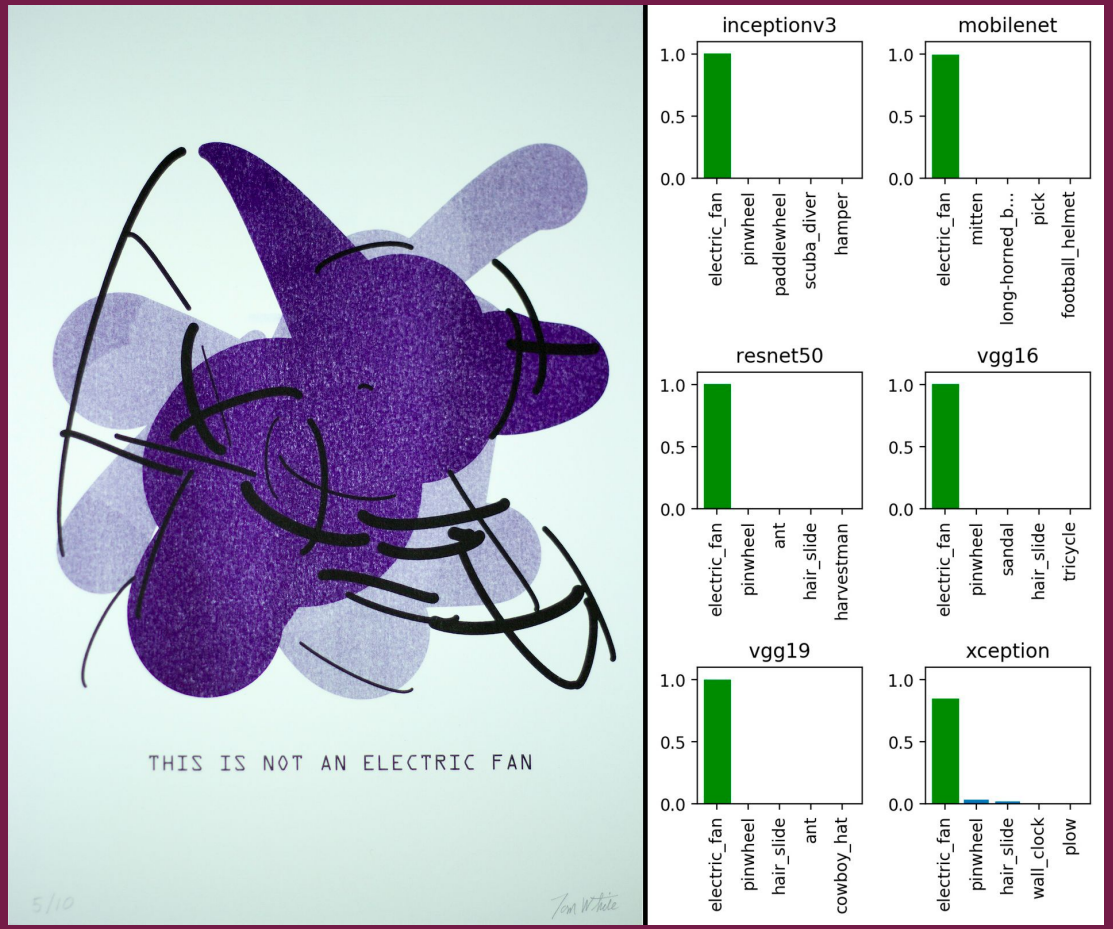



Perceptual field
Central receptor
Central effector
Inner world of the Subject
object
Receptor
Perceptual cue bearer (releaser)
Functional cue bearer
Effector
Motor field

Umwelt for a machine?



Tortoise robots Elmer and Elsie by William Gray Walter (1948, 1949)


THIS IS NOT AN ELECTRIC FAN
5/10
inceptionv3
electric_fan
pinwheel
paddlewheel
scuba_diver
hamper
mobilenet
electric_fan
mitten
long-horned_b...
pick
football_helmet
resnet50
electric_fan
pinwheel
ant
hair_slide
harvestman
vgg16
electric_fan
pinwheel
sandal
hair_slide
tricycle
vgg19
electric_fan
pinwheel
hair_slide
ant
cowboy_hat
xception
electric_fan
pinwheel
hair_slide
wall_clock
plow
1.0
0.5
0.0

Tom White

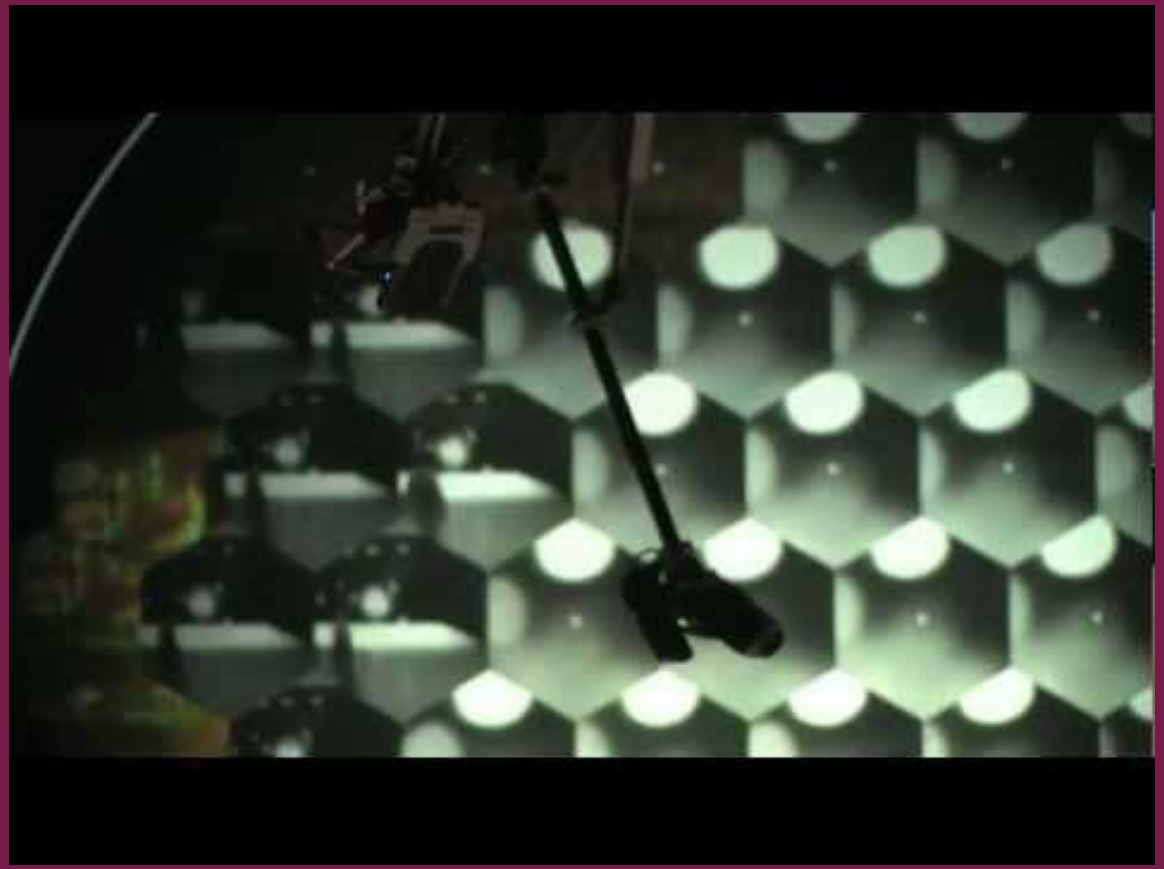
Exercise

Draw a diagram of the Umwelt (perceptual and motor fields)
of a device of your choosing

Autonomy

Martin Backes: What do machines sing of? (2015)

Two Google Home assistants arguing in Twich
(note the names from Waiting for Godot by Samuel Beckett)



Seiko Mikami: Desire of Codes (2011)

Homework

For Tuesday

Individual / pair / group

Please be prepared to present up to three ideas for an artwork. You will get feedback from each and pick one of them to be realized as part of the course exhibition.

Homework

For Tuesday

Realization Plan

(please submit to MyCourses)

- Sketch & Floor Plan
- Time management
- Materials & Equipment
- Resources (workshops etc.)
- Budget
- Working title

Next week's timetable

TUE

Presentations*

Floor Plan

Work

WED

IT Mika 13:15*

Work

Teacher feedback

THU

Work

Teacher feedback

FRI

Meeting 13:15*

Work

Opening 16:00*

* : meeting together