

# The Nature of Breath

Respiration is an indicator of life at all scales - from single celled organisms to human beings. Whether involving oxygen in the conventional sense of breath, or operating at the cellular level, the process of energy production is essential to life as we know it. Taking breath, the most natural of human movements, into close consideration, this work examines the relationship between what is natural and what is, or has been, alive.

While the simple and natural act of human breath may be just that, the external acts of human existence which follow breath quickly leave behind the common ground of what is natural. Every step of the anthropocene has been and will be fueled by breath in growing numbers - each exhalation pulling us further from some basal state of coexistence.

In this light, what does breath mean in the absence of life? Is the act of breath still natural when invoked by the artificial?

This work also asks us to consider how fragile breath can be. Since the beginning of the COVID-19 pandemic humans, as a species, have become obsessed with breath. For many of us, this fascination materialized overnight. We watched and read on distant screens of others struggling to breath and then fading away. This reality soon became our own and unpoliced, unfiltered breath became a luxury reserved for our most private spaces.

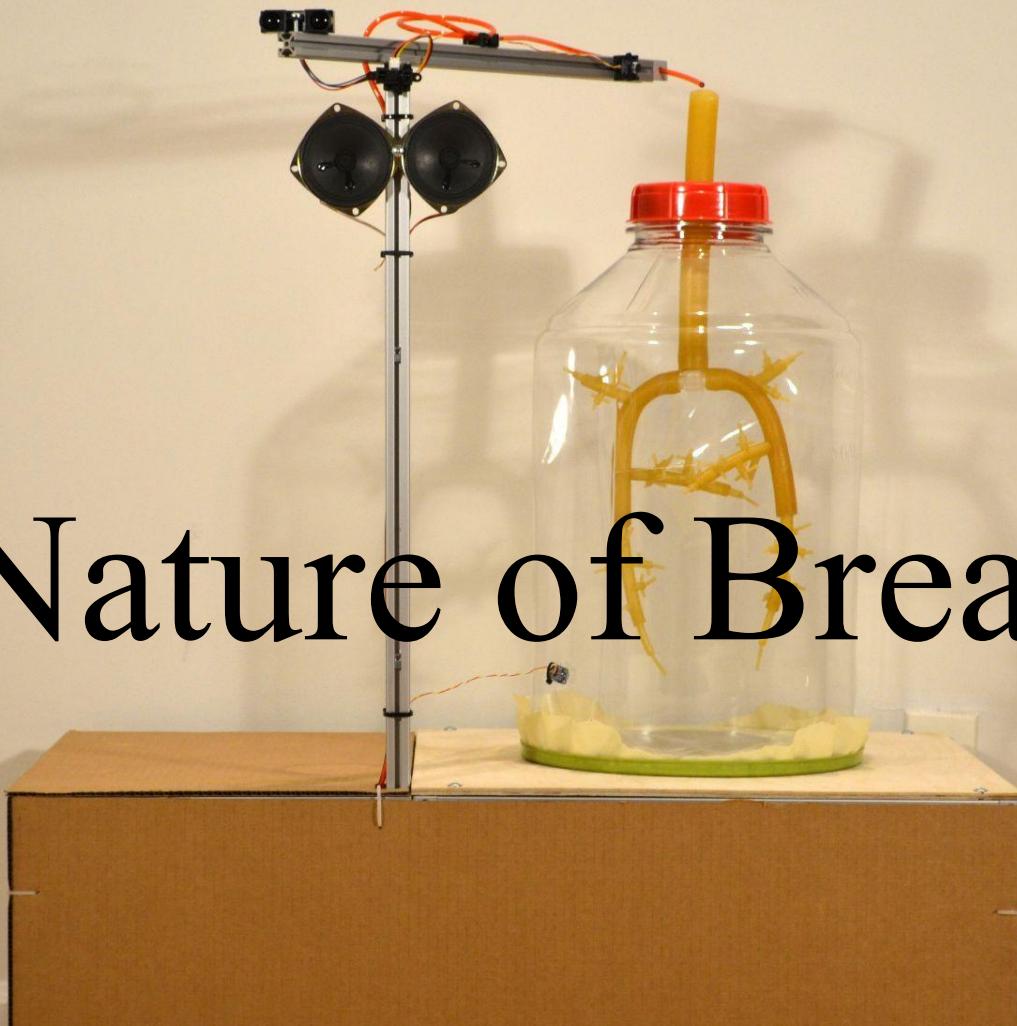
In these moments we ask; who holds power over our breath? Whose actions dictate whether this simple act is easy or sharply, drowningly painful?

If the COVID-19 pandemic can be taken as an indicator of humanity's relationship with the natural world, then reevaluation of this dynamic is imperative. We need to talk. As we begin this discussion afresh and continue centuries long debate, we must ask; what breath do we hold power over? Whose respiration do our actions touch from one moment to the next? How can we help the world around us to breathe more easily?

# The Nature of Breath



Lauria Clarke  
December 13, 2021

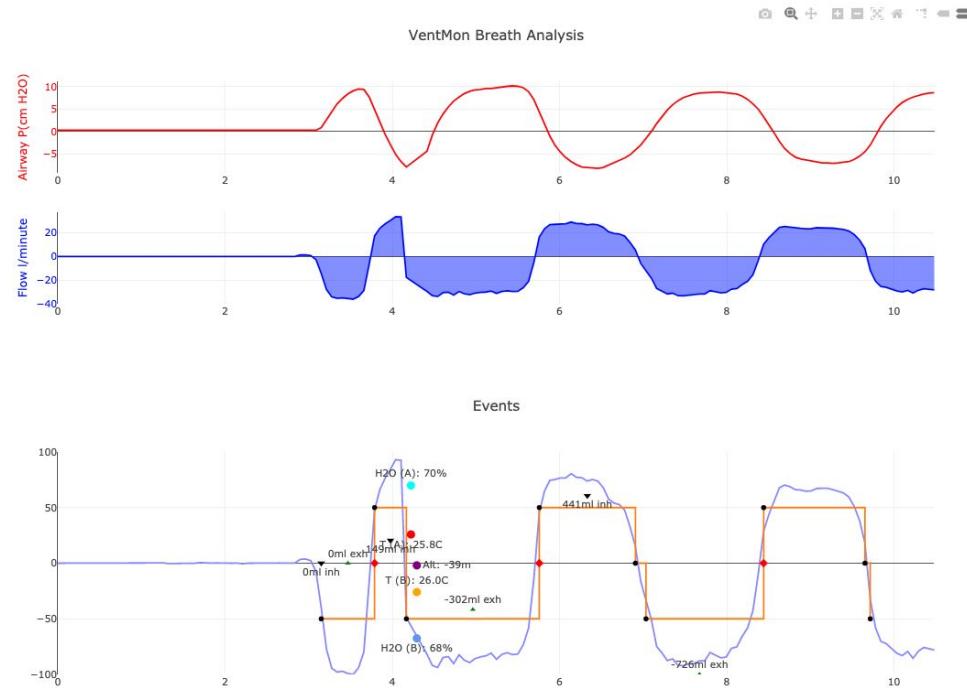


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Trace ID: 71.245.238.32.test\_file\_name.20200612135337

Number of Samples (~10s per 15000 samples): 32000

Plot Live:



rameters:

IP/TRIP High Pressure (cm H<sub>2</sub>O): 8

IP/TRIP Low Pressure (cm H<sub>2</sub>O): 2

Import Trace Export Trace



I am fascinated by movement.



How do we distinguish between the  
natural and artificial?

How can I create situations which  
make it difficult to distinguish  
between the natural and artificial?

# Why is this uncertainty important?

*Because the definition of Nature and what is natural is changing more quickly with every passing moment.*

# What can this emotion be used for?

*Uncertainty forces us to examine whether our current perception and beliefs reflect the world around us.*

I am fascinated by things that  
move....

What's the relationship between  
things that move and things that are  
natural?

# Why is creating movement appealing to you?

*Well, it's difference between life and death.*

Things that move are often alive.

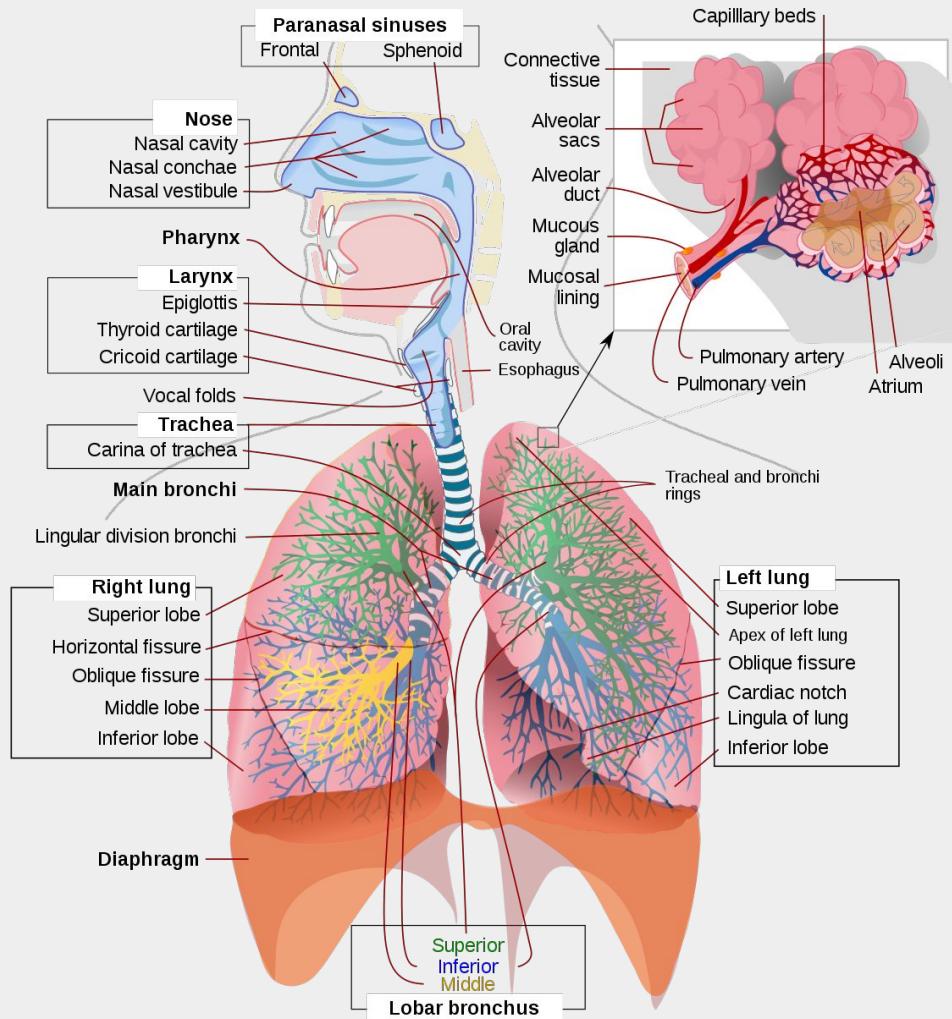
What is the relationship between  
what is natural and what is, or has  
been, alive?

*a machine that breathes*

- it should be natural in the auditory component and artificial in the visual component
- the speed, depth, and wetness of the breathing varies in response to human presence
- it can sound like different people and animals



This movement is not natural  
*enough.*

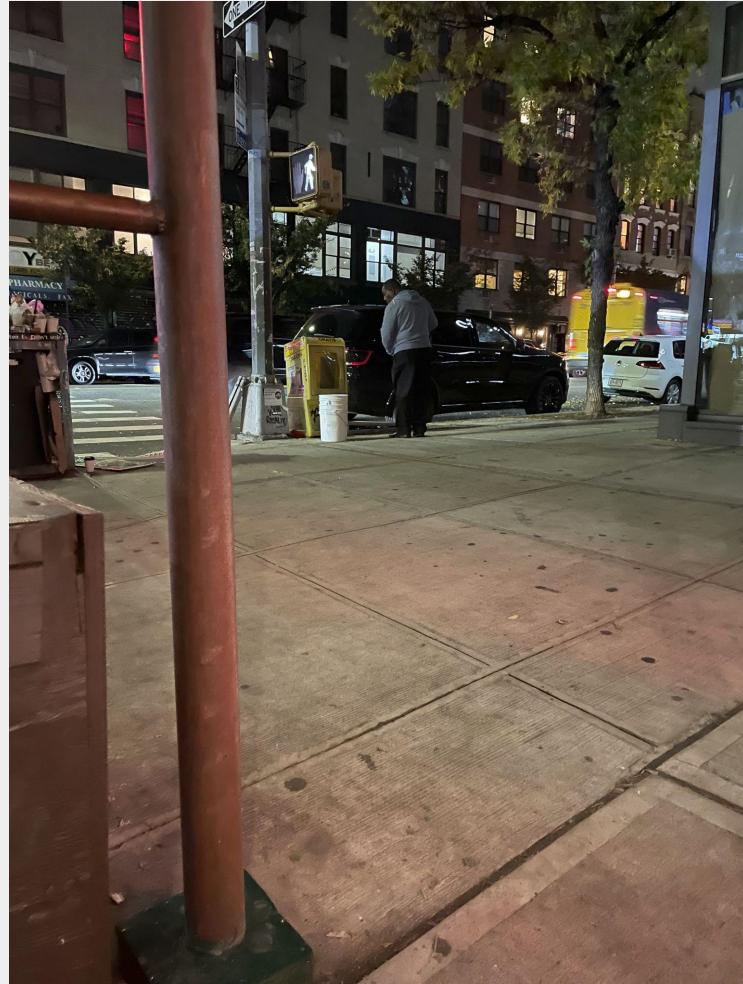
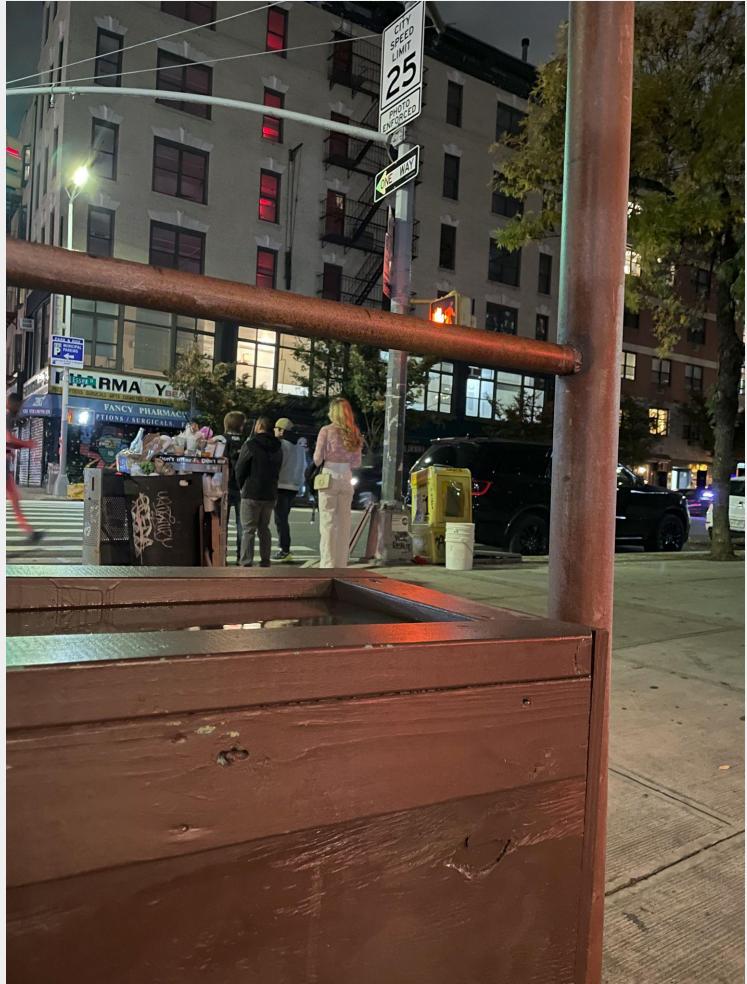


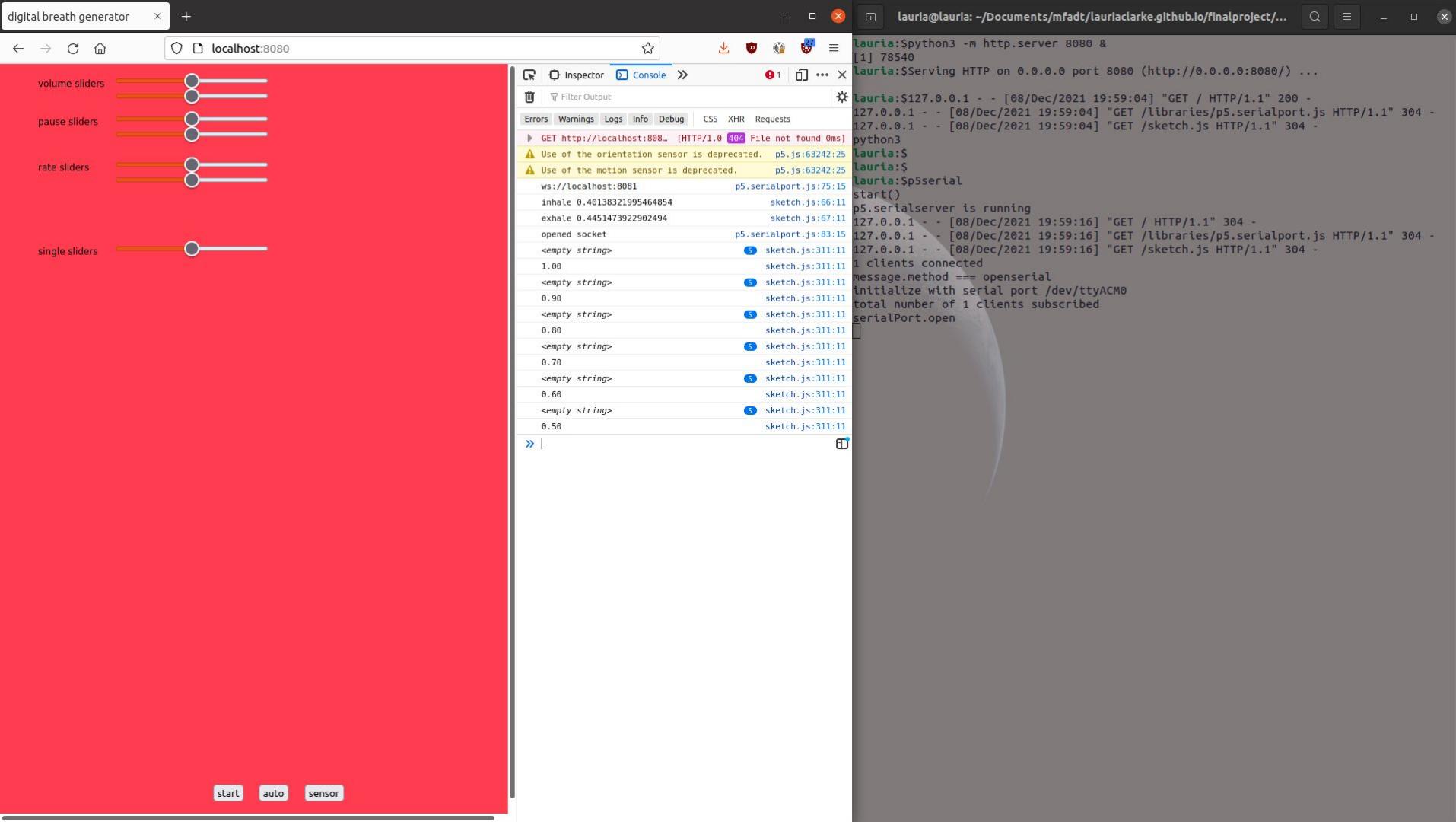




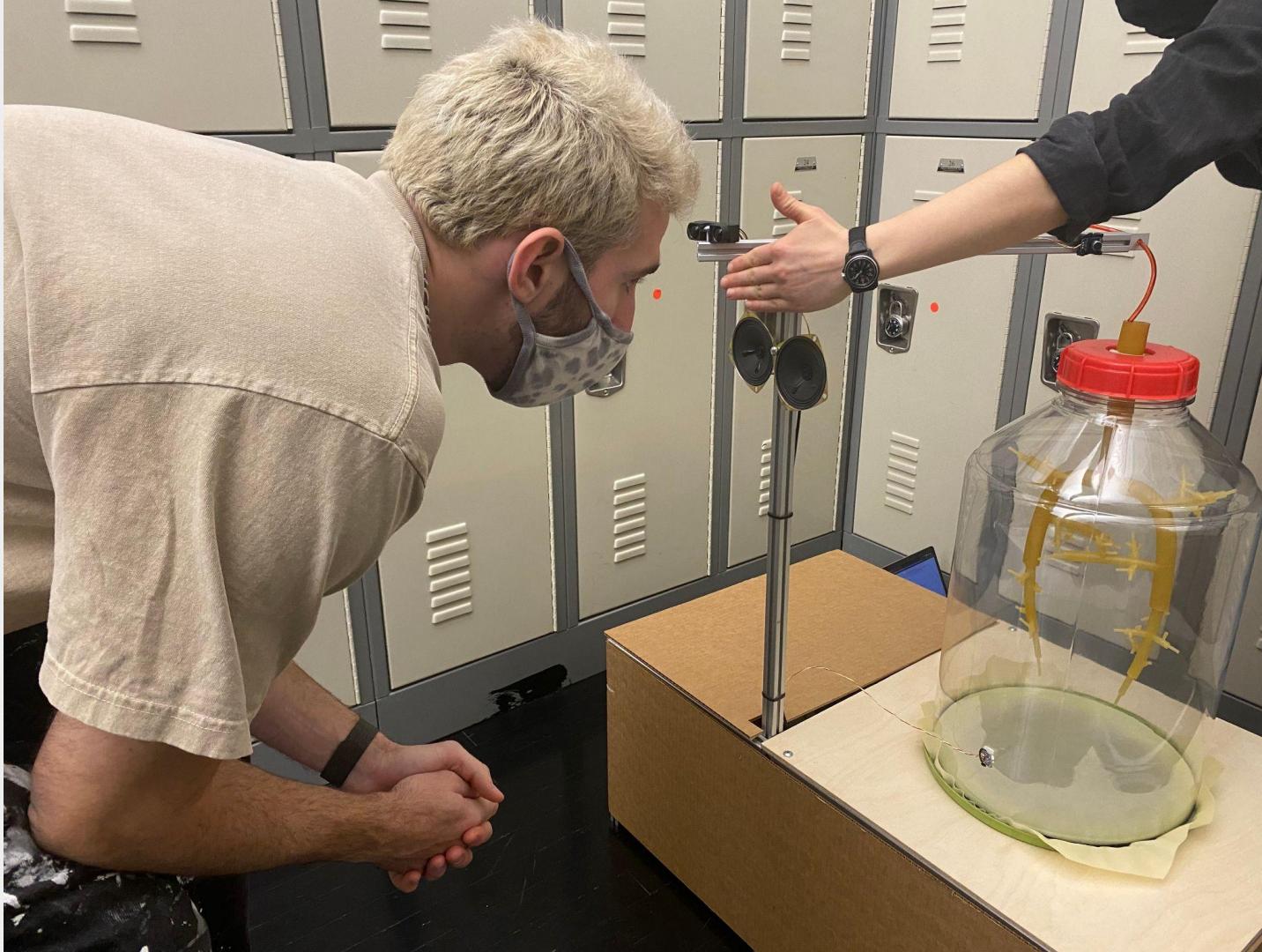
What is the effect of disembodied  
breath?















# Thanks!





*The natural and the artificial have merged at every scale...If Nature were a place, we could not find it. If Nature were a state of mind, we could not attain it. We are something else, and so is the world.*

Jedediah Purdy

*James Prosek*

What can art provide in this time when our earth is indeed looking vulnerable to rapid and regrettable change induced by human influence?

*Mark Dion*

Your question answers itself - the job of the artist-naturalist is precisely to interrogate the question of nature when it is subject to rapid change and its very definition is evolving in unprecedented ways.

*If we carve the human mind at its joints, the distinction between living and nonliving things forms a natural place to cut.*

James S. Nairne, et al.

*What we call life is a certain quality, the sum of certain reactions of systems of matter, as the smile is the quality or reaction of the lips.*

Albert Szent-Gyorgyi





actuation

storage

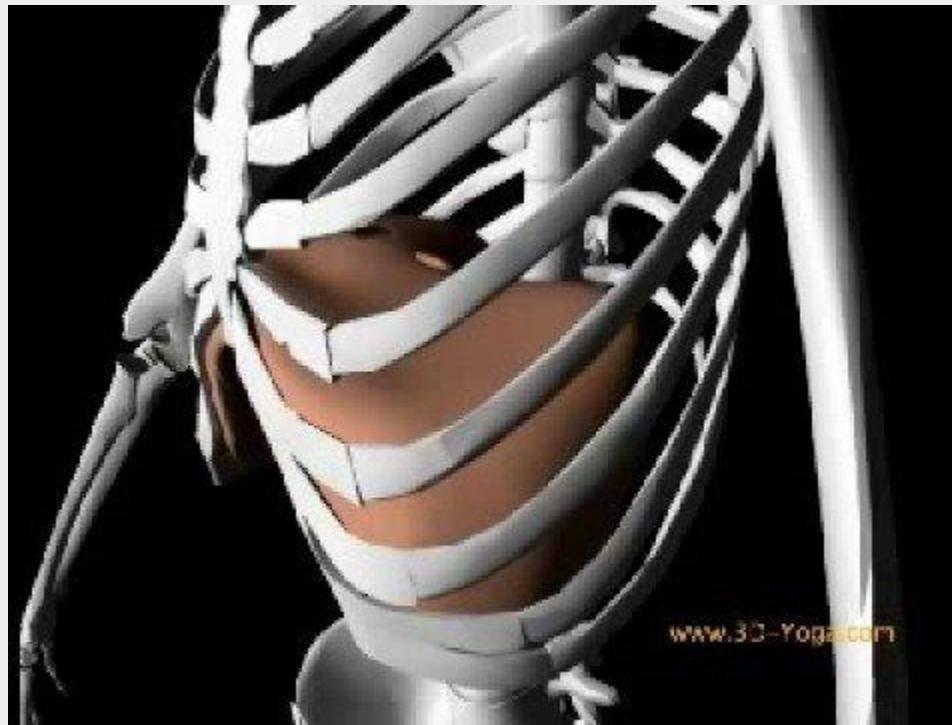
modulation

actuation

—storage—

modulation

How do I create actuation?



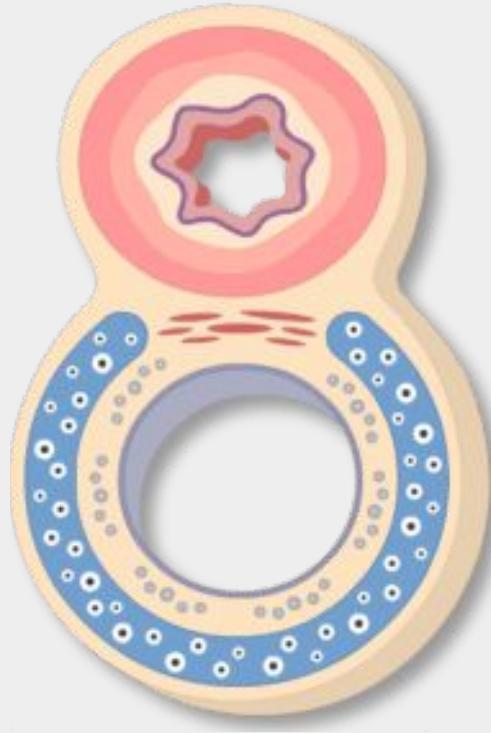
animation of the diaphragm



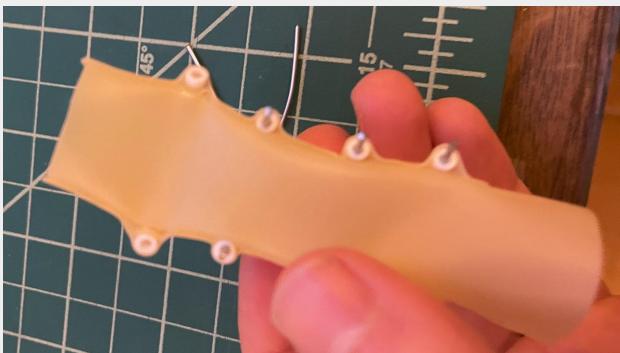
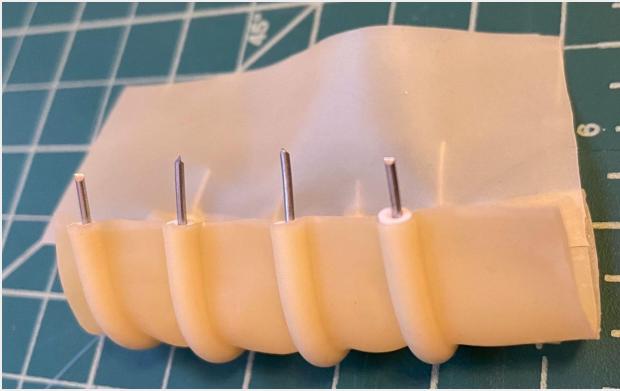
audio



How do I create modulation?



cross sectional view of the  
trachea and esophagus





How do I stick all these things  
together?

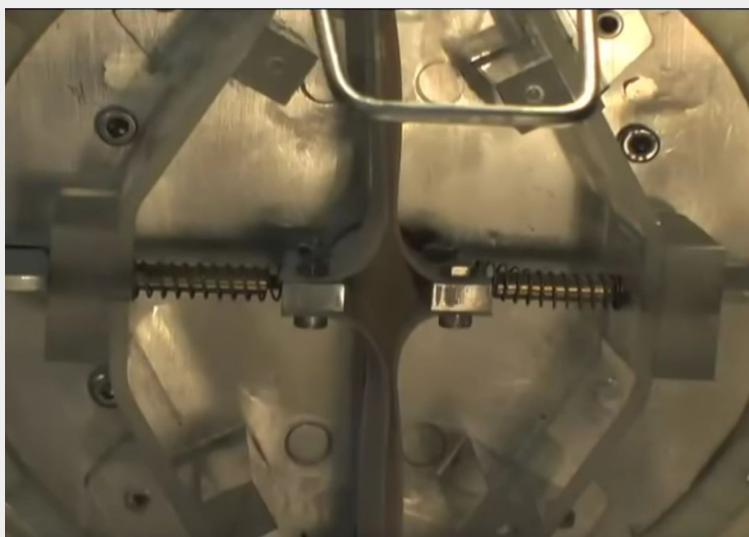
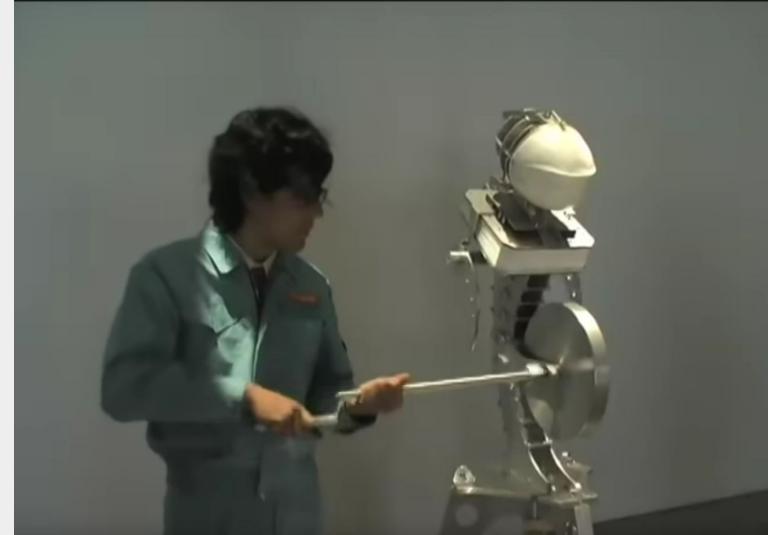




Fancy gallery goers.



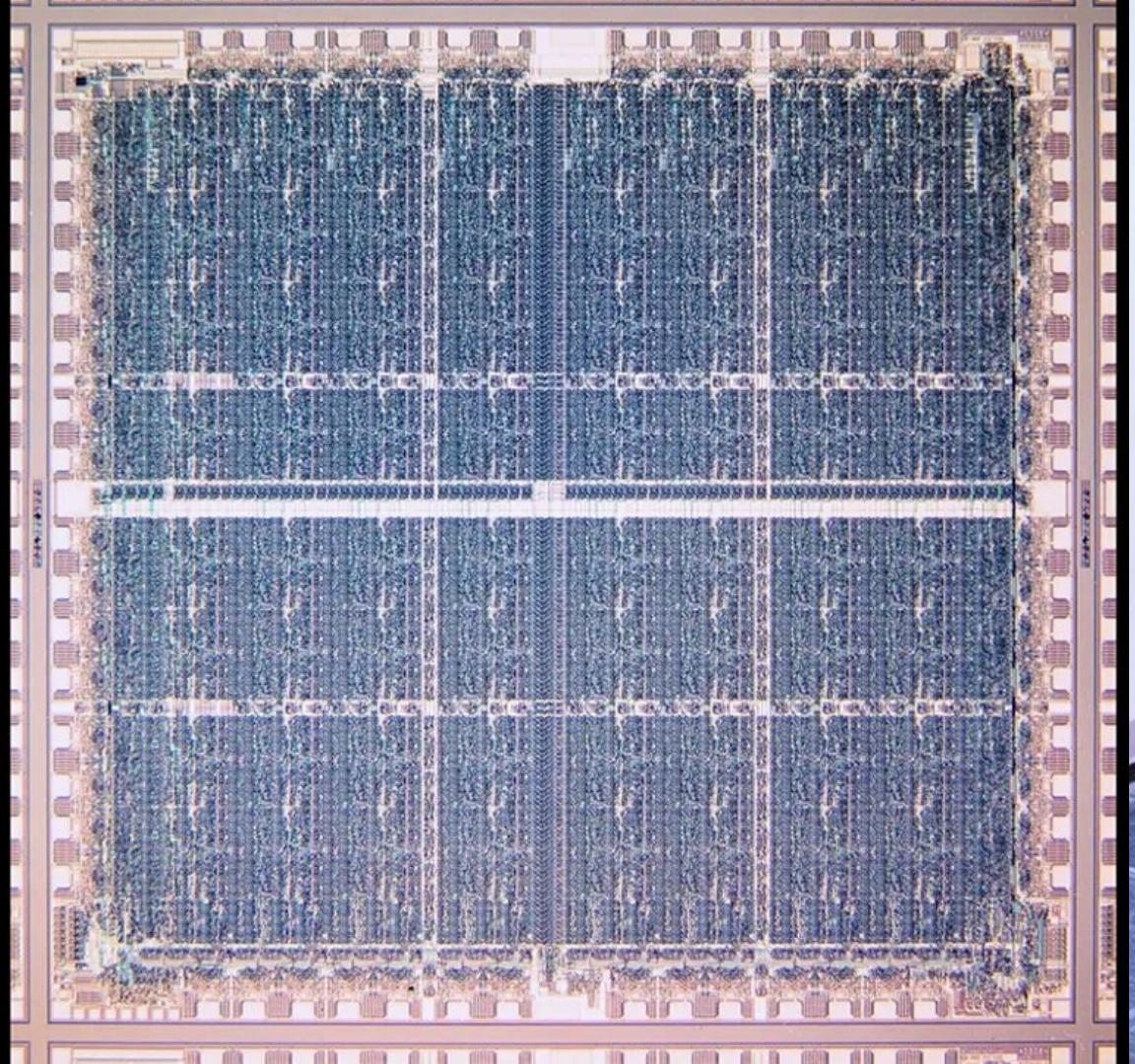


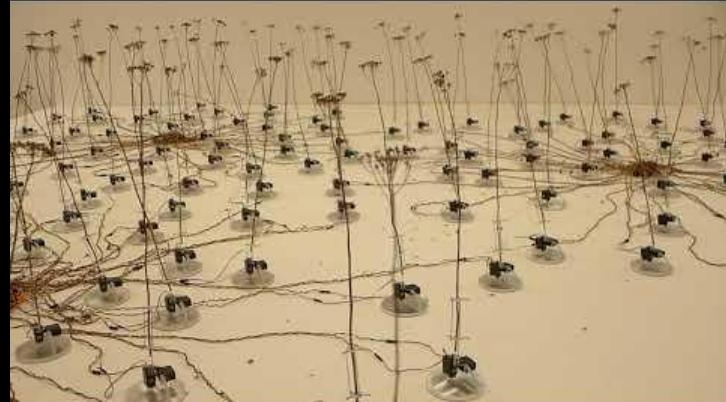
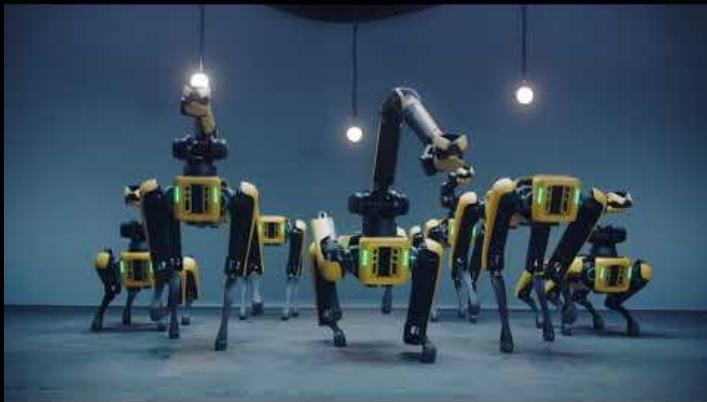












Why is this uncertainty important?

What can this emotion be used for?

How can I create situations which cause people to question whether something is natural or artificial?



"Is there a person in there?"

"Is that my breathing sound?"

"How does it work?"

"It reminds me of the roots of a plant."

"What do I do?"

"I think the intended interaction [between] the distance of the user and the sounds produced is incredibly powerful."

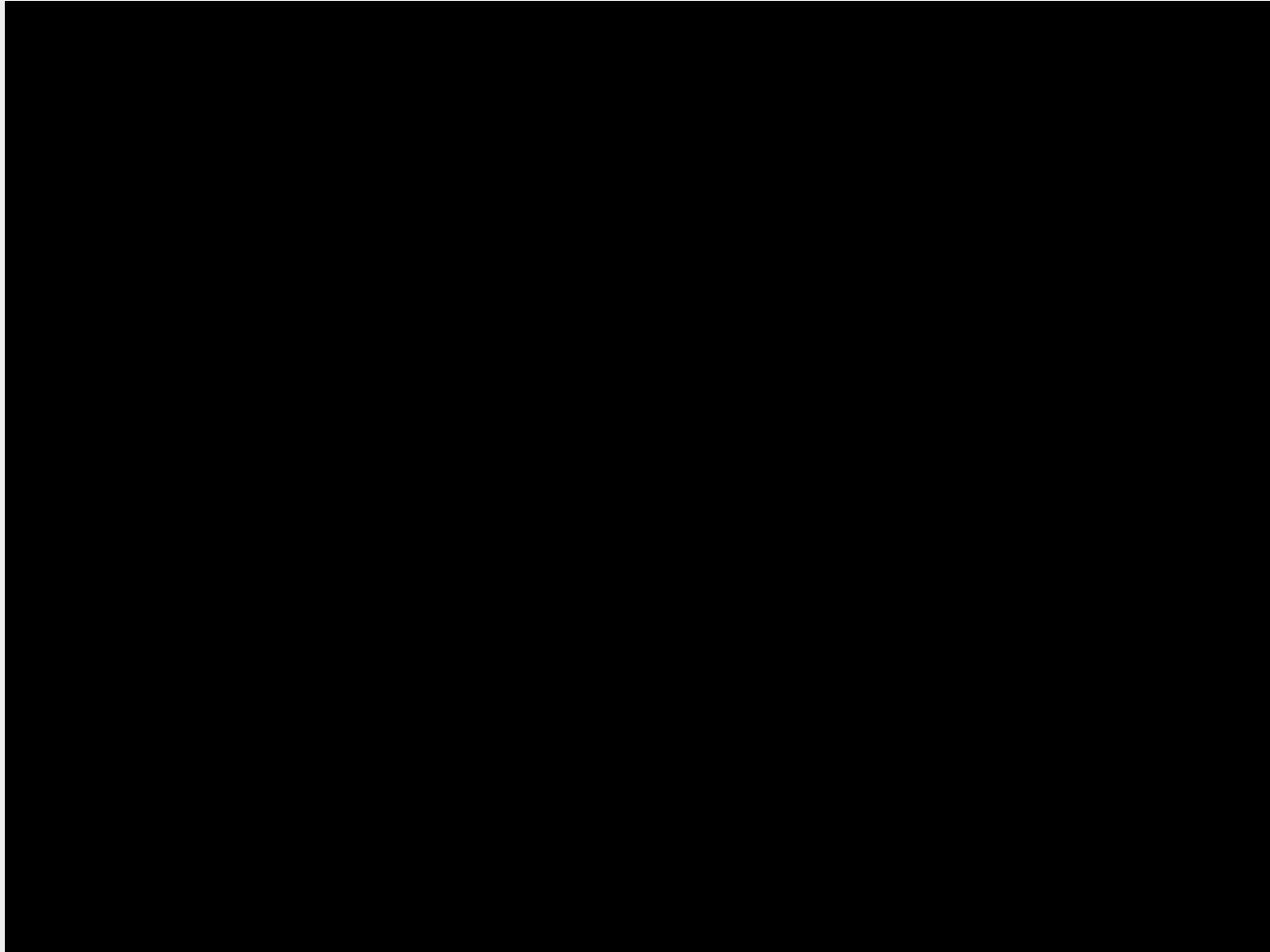
"This makes me uncomfortable."

"The interaction definitely made me focus on my breathing...the form made me think of lungs."

"...hopefully it will click for users that they can conduct the breathing of the artificial lungs like an experimental instrument..."

"The movement of the latex diaphragm is really creepy!"

"Seeing it actually move and have air come out is the best part."



Why is creating movement appealing to you?

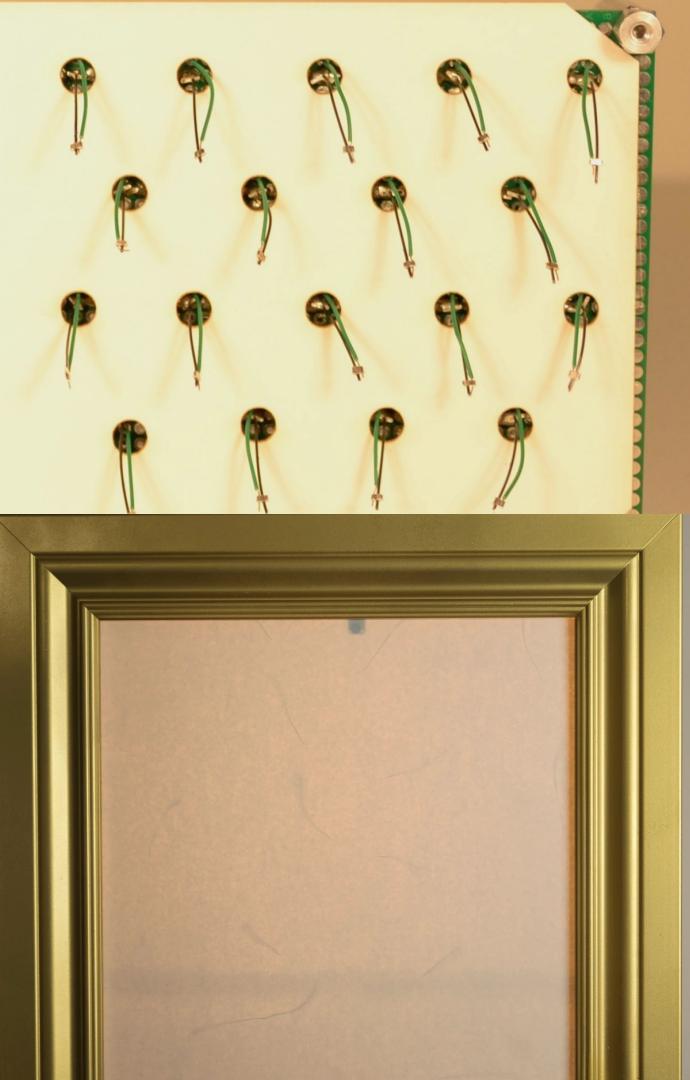
*Well, it's difference between life and death.*

Are there any types of movement that make you uncomfortable?

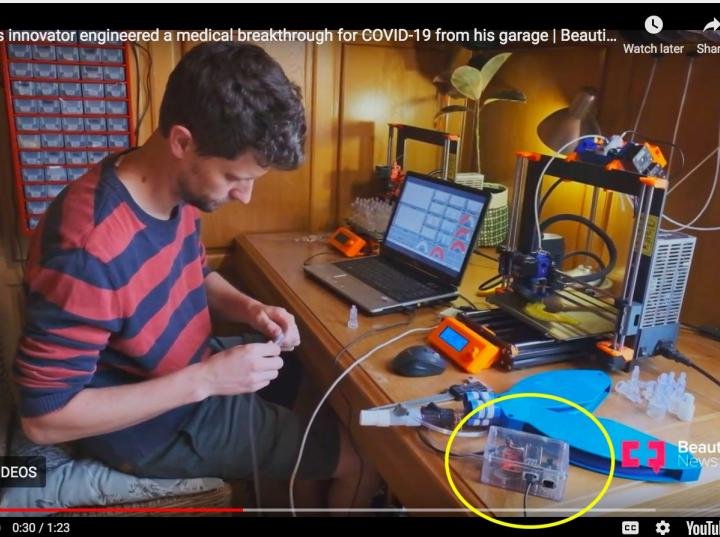
*Anytime that there's a living organism inside something that you can't see but you know is in there is a bit creepy. You don't know if when it gets out it would be threatening.*

What is the difference between natural and artificial movement?

*Natural movement has a certain unpredictability. Randomness can be generated to create movement artificially, but that's a grey area.*



How does humanity create  
distinction between what is natural  
and what is artificial?



What questions would such a work address?

How/why/when is breath an indicator of life?

What does breath mean if it is not an indicator of life?

How fragile is breath?

Who holds the power to influence our breath?

What emotion is conveyed in breath?

How far does breath as metaphor extend into our relationship with the natural world?