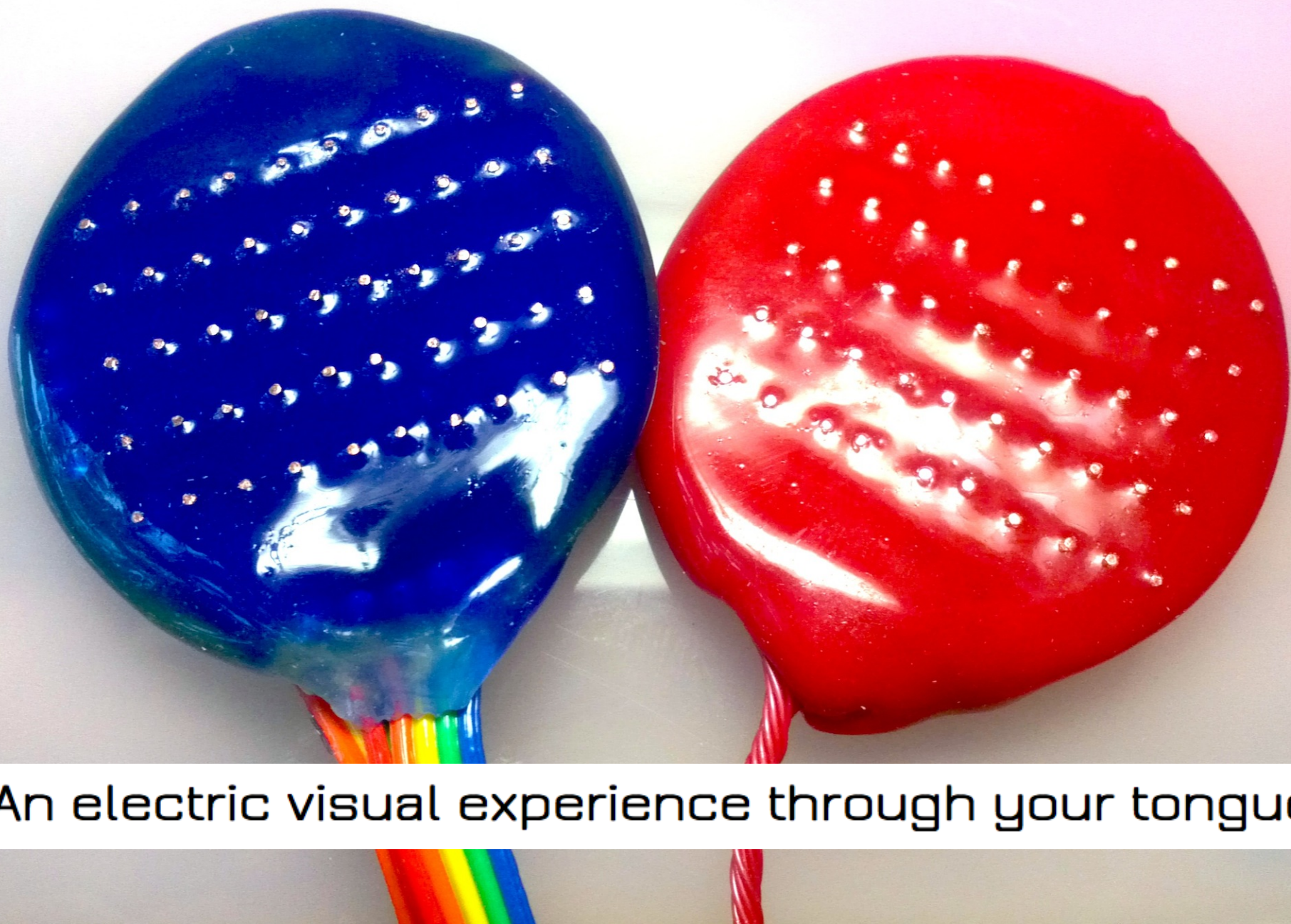




# POPmatrix

Aisen Caro Chacin



An electric visual experience through your tongue.





# POPmatrix

Pop Matrix is a new kind of pop art.

This device displays images on your tongue through a series of electrodes.

Using sensory substitution, the device trains the user's brain to translate tactile to visual information and in time the user will begin to see the images displayed on their tongues.



This project is largely inspired and informed by the work of Dr. Paul Bach-Y-Rita on sensory substitution and prosthetics. His devices such as the BrainPort were non-invasive and expanded on the studies of the elasticity of the mind.

"We see with our brains, not with our eyes."

-Bach-Y-Rita



PopMatrix is a device that enables individuals to stimulate their visual senses.

These units display the received visual cues from the computer via a processing training sketch sent through this device worn inside of the mouth using electrode vibrotactile stimulation of the tongue.

Using non-invasive sensory substitution methods, POPmatrix facilitates a new port for vision and a discreet addition to the palate of senses.

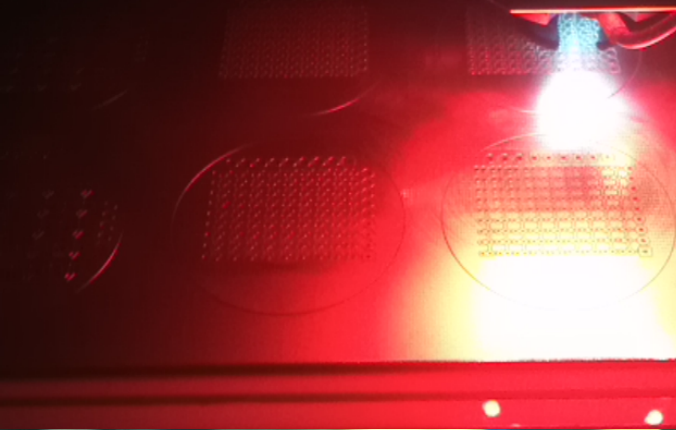


# SPOONmatrix

This SPOONmatrix began as an exploration of tongue display units and it has evolved as an opportunity to interface with the physiology and electric potential of gastronomic experiences.

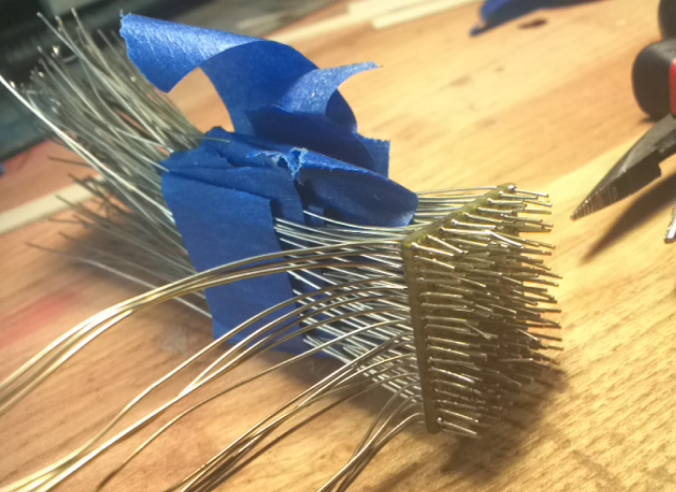
This device is also using the tongue display unit that displays light pulses of electricity based on the animations programed for particular dishes.





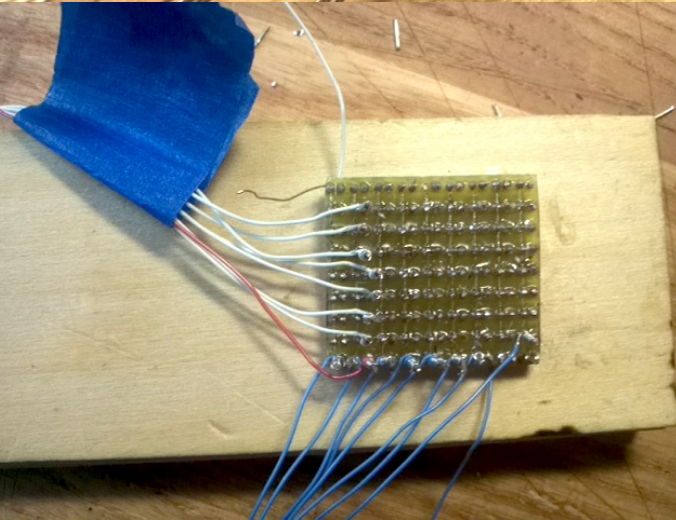
<< milling the board

shaping the spoon >>



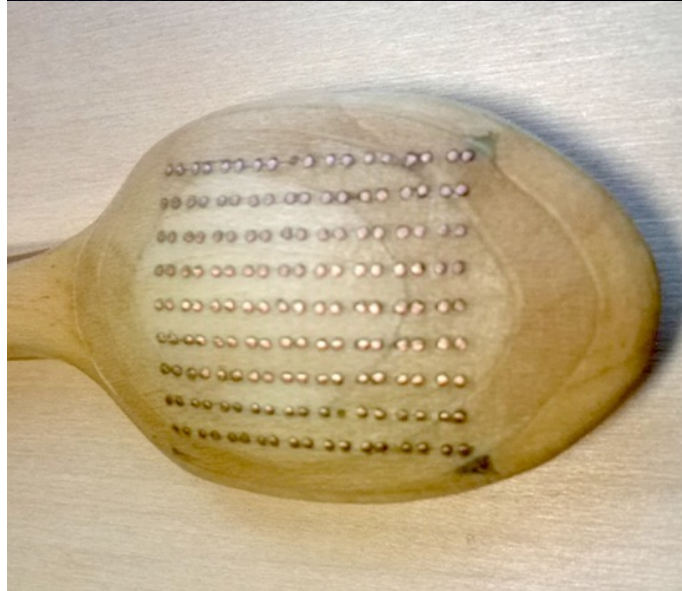
<< soldering electrodes

sanding >>



<< soldering leads

Ta da!! >>



# FUTURE



These devices have spun a new series of electric utensils called ByteWare.

Eventually Electric Bites, will be a culinary performance in collaboration with chef Dan Zaccariello.

This event will exhibit the ByteWare with dishes being specifically created for each utensil.

Other ideas to supplement this dinner are self-folding Nitinol Napkins, and thermal display dishes.





# ByteWare

A series of electric utensils that spark  
gastronomic experiences.

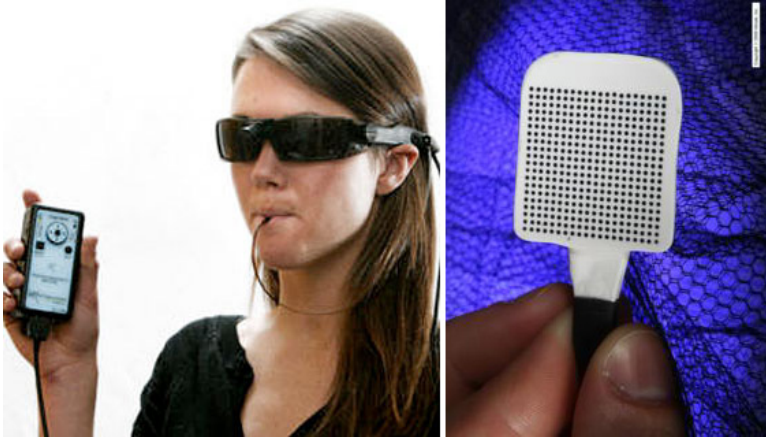


## GEIGERchops & POWERfork

These GEIGERchopsticks are a response to the nuclear waste that affects the ocean. These Chopsticks raise awareness to the radioactivity found in fish we eat for example in sushi.

The POWERfork plays with the idea of galvanic electricity by having interchanging silver and zinc fork pins, the ions from the zinc will migrate to the silver thus making them cathodes and anodes. The electricity collected will then power an LCD screen that displays the seconds you have powered the fork by using it.

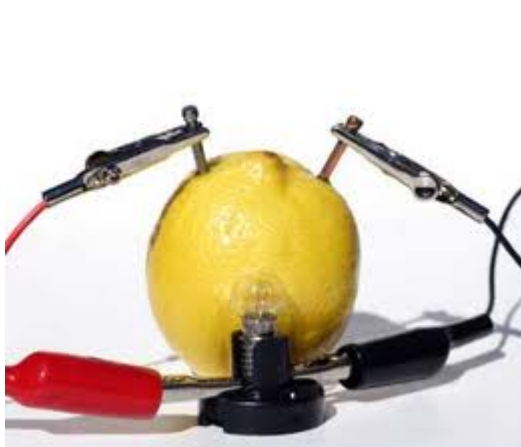
# Precedents



Bach-Y-Rita's BrainPort

Tongue Display Unit

MouthBrain



Eye Candy Can

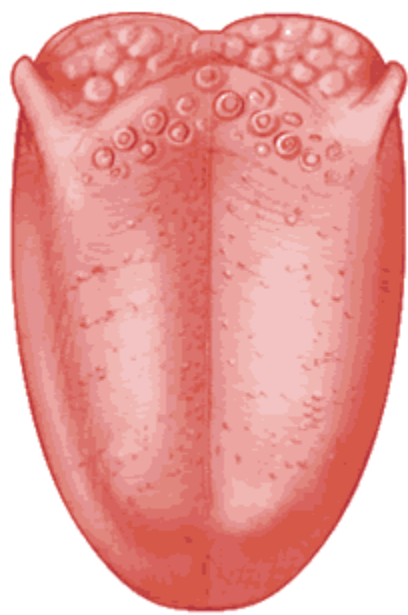
Lemon Batteries



<http://2020.tumblr.com/post/133620837/research-stimulation-of-visual-cortex>



WHO WANTS TO TRY IT?



THANK YOU