

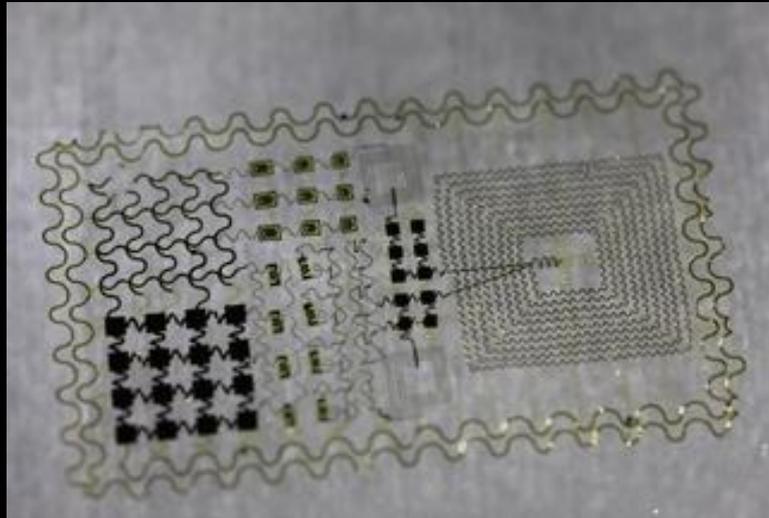
MONITOR ATTRACTION

By Joshua Miranda

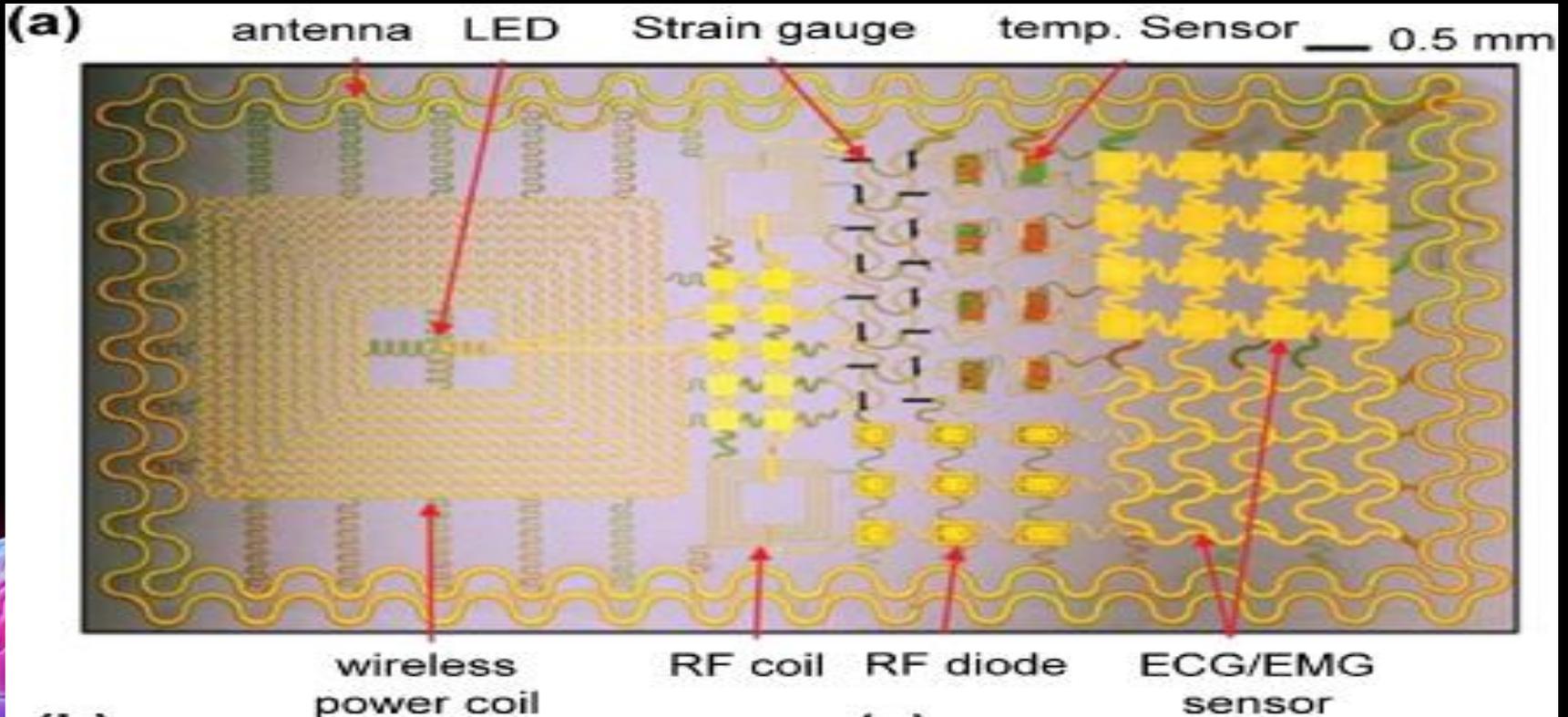


EPIDERMAL ELECTRONICS

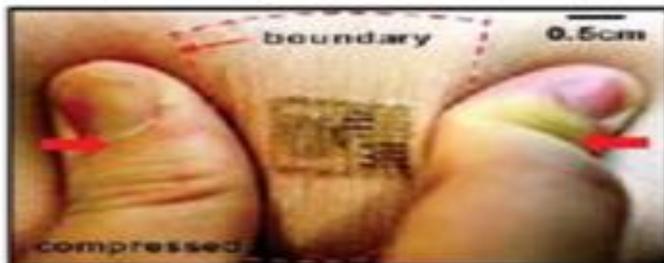
Leading medical innovative technology in monitoring heart, brain and muscle movement through a thin and flexible silicon 'tattoo' that can be applied directly on the skin.



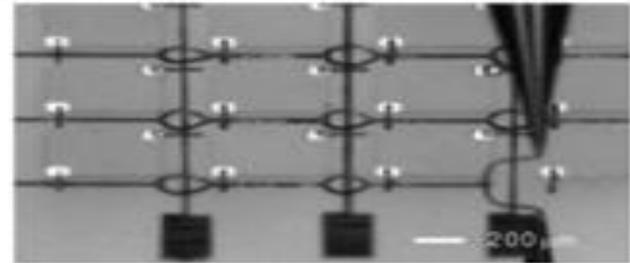
HOW IT WORKS?



(b)

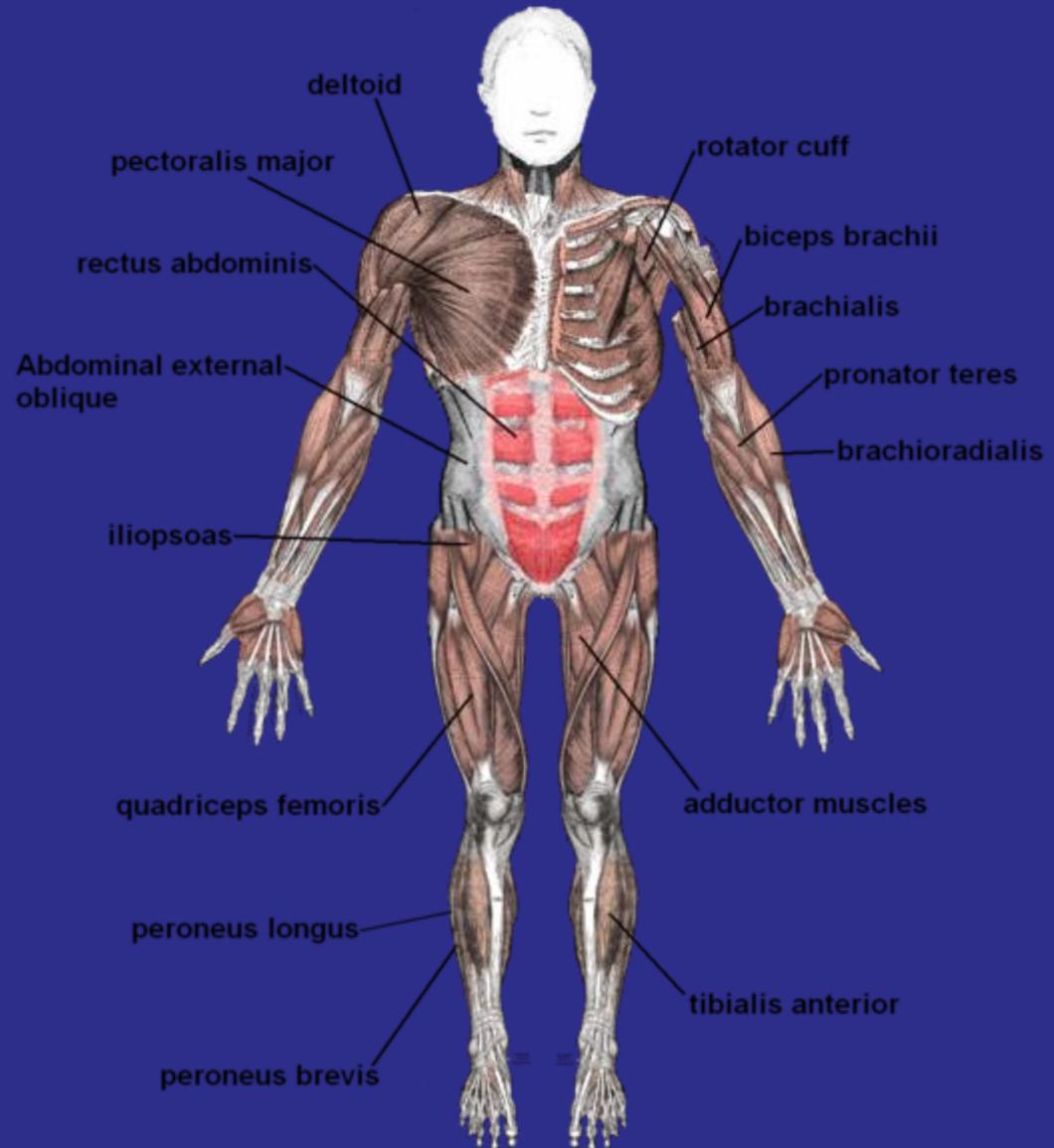


(c)



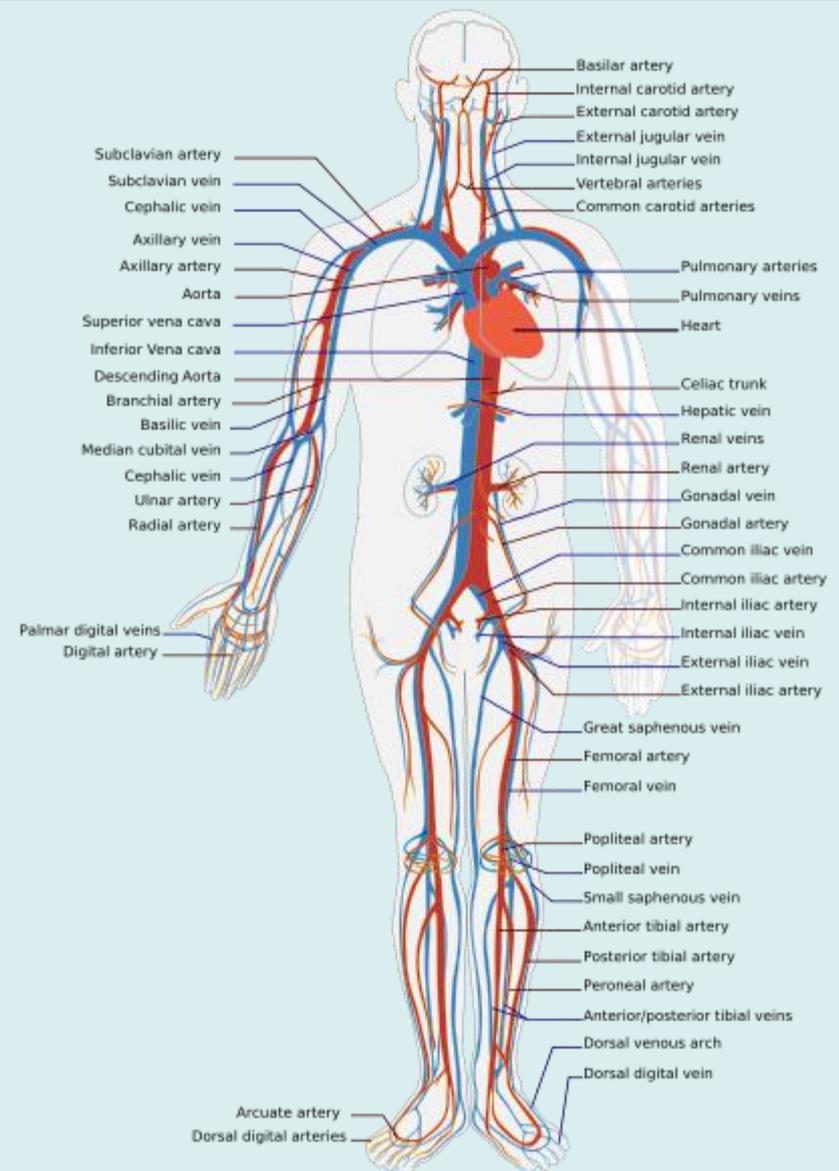
HOW IT WORKS?

Monitors
movement/rates
through nervous
and cardio
vascular systems



HOW IT WORKS?

Reads and processes signals that are sent wirelessly to external monitoring system



HOW IT WORKS?

Semiconductors no larger than a hair strand

Wavy pattern to allow flexibility and permeability



Inducts solar energy and harvest it with solar collectors that can later be used as electric stimulation



HOW IT WORKS?

Video Explanations

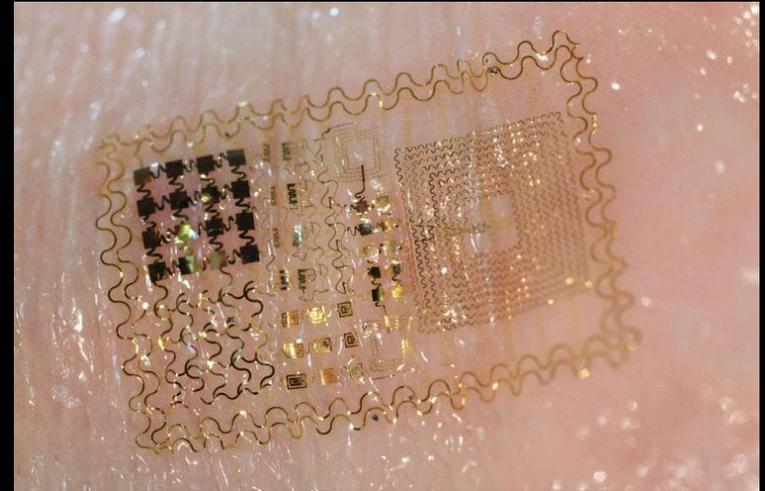
http://www.youtube.com/watch?v=Dyk9Xnj4_5U

http://www.nsf.gov/news/news_images.jsp?cntn_id=121343&org=NSF



Installation Piece

Epidermal Electronic
'Tattoo' placed on art
gallery audience with
embedded serial number
code



Monitor human
interactions

Monitor human
to art piece
interaction



Installation Piece

Objective

- Record and project physical changes in the body that occur when observing one another as well as other art works present in gallery.
- Humans are said to determine attractions within the first 15 sec of interactions
 - Levels of attraction embedded in physical changes in heart rate and body movement.

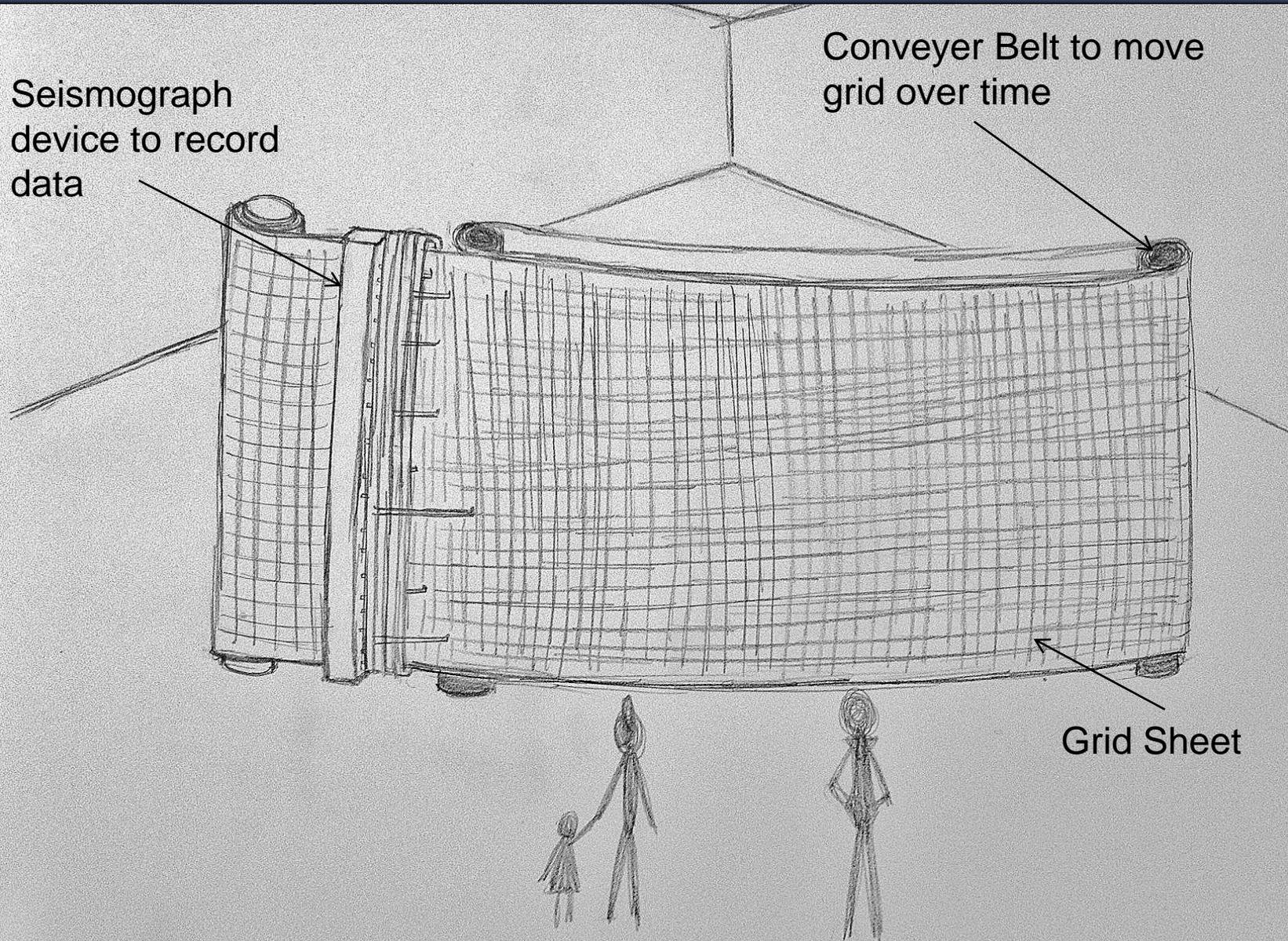


Projection

Seismograph
device to record
data

Conveyer Belt to move
grid over time

Grid Sheet



Projection

Brain

sends messages to the nerves based on what portion of the brain is most being used

Average brain wave functions will be broken into 60 divisions that will be presented by the columns on the grid

Rows will be broken into time variables; intervals of 5 min



Projection

Cardiovascular

records changes in blood flow which begin with changes in hearth rate

Muscles

Shift in body language occur through the movements of the muscles

The shift in seismograph needle will be an accumulation of the data recorded from cardiovascular and muscle movement during time period (prob presented at 10x the scale so thoroughly visible)



Projection

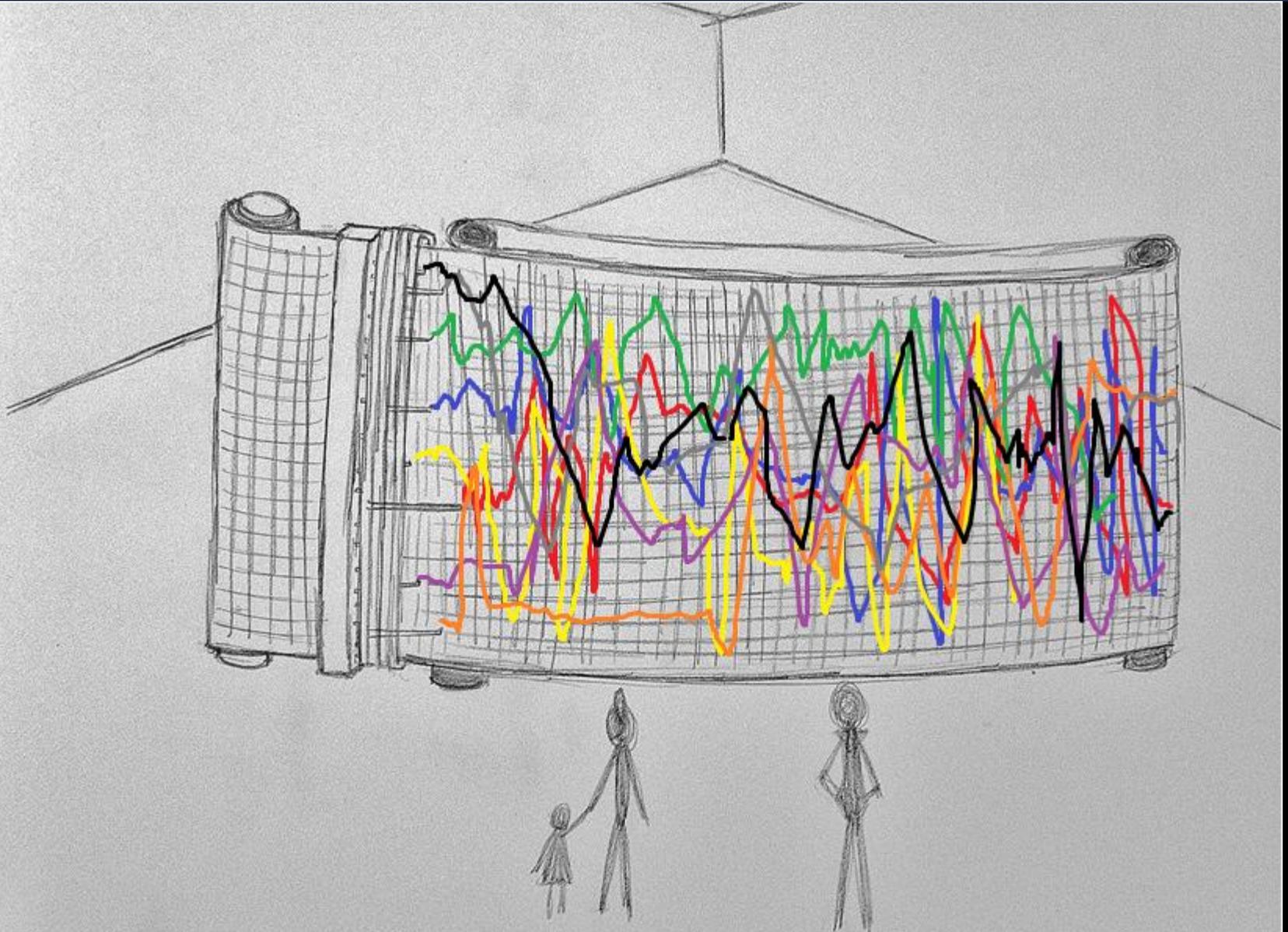
Each needle on seismograph will belong to a different audience member and will also be presented by a different color

-data will be received wirelessly to seismograph computer and then translated and transferred onto grid

Video surveillance of art gallery will determine exactly what each participant was doing at the time of their data recording.



Projection Outcome



Final Observation

The art piece is to identify whether or not humans identify with art on the same scale as they do with other human beings. Such as, do humans determine within the first 15 sec of interacting with a work whether or not they like it, and to what scale? Also to show what aspect of the human body exhibits more changes within the process of interaction and determining level of attraction.



Sources

Brien, Miles O', and Jon Baime. "Electronic Tattoo Monitors Brain, Heart and Muscles (w/ Video)." *PhysOrg.com*. 30 Jan. 2012. Web. 19 Mar. 2012.

<<http://www.physorg.com/news/2012-01-electronic-tattoo-brain-heart-muscles.html>>.

Chamot, Joshua A. "Stick-On Tattoos Go Electric." *Nsf.gov*. 11 Aug. 2011. Web. 19 Mar. 2012. <<http://www.nsf.gov/news/>>.

Khan, Amina. "Thin Electronic Patches on Skin Could Monitor Hearts Comfortably." *Los Angeles Times*. Los Angeles Times, 11 Aug. 2011. Web. 19 Mar. 2012.

<<http://articles.latimes.com/2011/aug/11/news/la-heb-wireless-electronic-skin-tattoo-heart-device-20110811>>.

