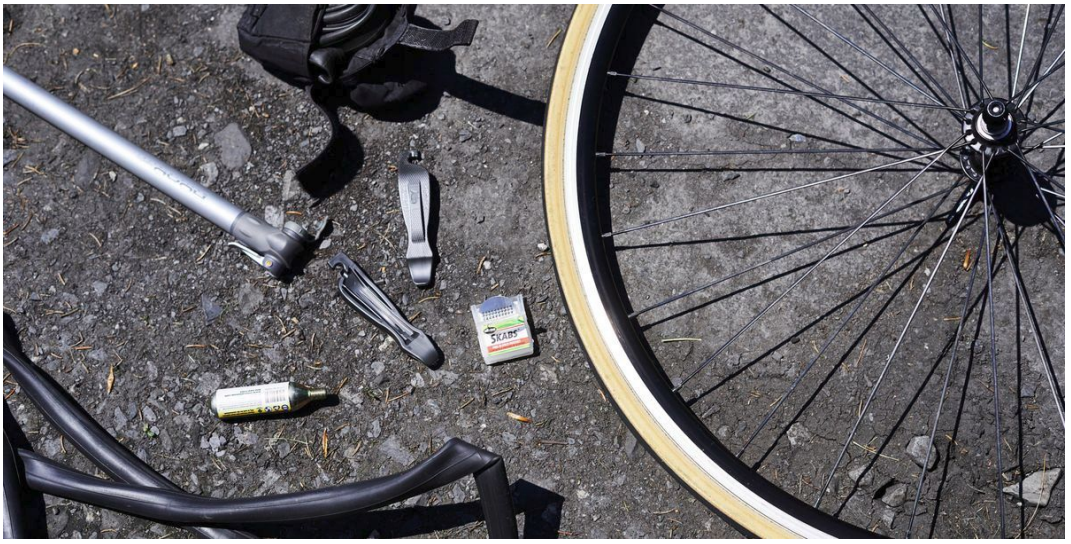
Etude 1 - Stranger Things

Marie-Christine Larivière B.
40100401

I. Discovery

I.I The Bicycle

Made to transport goods and people, the bicycle is not the only object made of metals and wheels to facilitate human life, but it's in my opinion one of the easiest to access, maintain and repair for the greater mass; providing a sense of autonomy and efficiency in their users of all ages. Current bicycle materials for frames range from steel/aluminium/titanium blends to carbon fiber and resin. Beside some new electric models, most road bicycles use basic mechanical keys and components, also made of steel: the gears and chains used to carry and balance the movement to both wheels expose their sharp edges to the naked eyes, bringing a sense of cold reliability. A seat, often made of plastic or leather, completes the frame and two pedals to control the main mechanical gear with your feets. The wheels on their own are the most interesting aspect. Influenced by the user influencing the gears, two ring-shaped disks with delicate rods crossing each other rotate constantly on their axes and on the surface of the earth. To prevent bending, a tire made of caoutchouc absorbs the chocs, paired with an insulating tube filled with air. It is with the bicycle tires that I enjoy crafting the most. Rubber, in contrast to metals, is resistant to rust and is smooth and stretchy. It won't convey heat or electricity and has an incredible durability overall. The solid rubber from tires come in many shapes of scales and forms, the closest comparison would be like using thick leather for belts. Reusing the pierced innertube in my practice proved useful when insulating wearables and brought to my clients a sense of unique purpose of value and resilience.



With an ever changing environment but a fixed mechanic, the need to regulate our human body to control the speed and directions shows that the interaction with the single speed bicycle is quite similar to our computer interaction today; a learning system influencing a linear system. Using the bicycle brings the user in a personal and embodied action which adjusts his mindset to the present moment, either when sharing the road with others or when pushing one's limits in a race or design. (see 3d printed wheels)

[1]

My second object interprets the same kind of 'sad-isfaction' explored in *The Tuning of Materials*[2] - let me present:

I.II *(Everything but)* The Correction Pen - aka liquid paper or wite-out

Less functional and a lot closer to emotions, the study of the correction pen is study about the passage of time, the evolution/obsolescence of things and about using something outside the boundaries of its original intended design. There was a time without distraction available in our pockets, a time of contemplation and sometimes boredom in the classroom where my pencil case was a treasure chest. Colored pens merged with rulers and other tools, but what I remember having to buy over and over was the 'wite-out' pen. It's aerodynamic design holds in one hand and a gentle pressure on the tip will release the roller ball and spread the white corrective liquid. One could quickly edit a spelling typo, but not without a leaving mark; making every mistake very obvious in irony. In our digital era where the connection of delivering assignments on paper isn't thought handwriting, it is the nostalgia of analogue bureaucracy. It added something to the document, a second layer, invisible, under the white ink. Using the corrective pen meant patience, it gave us the time to think about our next written words and contemplate the reflection of the light fading slowly on the drying liquid. It was by far the most advanced designed object in my case at that time even though it's interaction with the user was quite simple and linear - almost push and play.

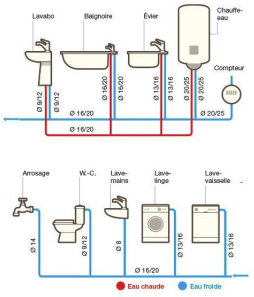
[1] From https://www.reddit.com/r/interestingasfuck/comments/e3190s/this_3d_printed_infinity_wheel_bike/
[2] KARANA Elvin, The Tuning of Materials: A Designer's Journey

I remember not being allowed to use liquid paper on official documents, as it showed a visible change that could be counterfeit or challenged. In a symbolic sense, *we were not allowed to really use it anywhere,* bringing up an early kind of performative stress when handwriting the final copy of an essay. The corrective pen still exists today, art challenges involving scratching and layering use it as a medium, rebels use it to tag public property and makers shall make the correction-ink-pen into a conductive ink receptacle. The liquid paper composition grabs and dries on to anything but is easily scratchable; what would be the right composition and qualities of homemade conductive ink/paint? Is there a degree of absorption to a paper prototype that should be taken into consideration? Could we scratch our new conductive ink and evolve the circuitry without starting over? Where's the interaction in that? Why conductive nailpolish?

I.III The 'no-contact' water sink

My third object explores something more connected. The water system reminds me of an electrical grid, two ressources easily available in Quebec and meaningful to anyone. Water holds political and historical meaning depending on time and location, but understanding all facets of these aspects is for further research. Having access to clean and soft water at will in public space is a convenience easy to forget when the only action needed is to present your hands to a motion detector. Turning a handle with our hand to control the flow and the heat of water was taken for granted. Observing the behavior of people washing their hands in no-contact lobbies, I have yet to name the feeling of missing direct sensorial feedback from our known environment. The same feeling can be explored when studying a wired space vs. wifi or bluetooth grid. Seeing the actual connections made us aware and literate on the matter, but how will further generations interpret their environment if most of what commands their life is unseen and immaterial in a system? Automation (domotique in French) is not currently in every household but it's making its way as a solution to health, security and energy problems in a growing population.

Handles and valves are made of different materials, almost always metallic with water pipes, though some coating might add a soft touch under our fingertips. They required some strength to open and offer direct feedback on the current flow, allowing the user to adjust it's behavior accordingly. Sensor-valves fulfill the same goal but skip completely the user's need in terms of regulation. The water tap, being an element of interior design, is offered in many shapes, reflecting the user's style and culture. It gives an element of personal expression to an everyday commodity, sometimes using a single handle for two options (warm and cold), sometimes two valves, one for each option. I have yet to see a no-contact water tap that allows for more than one option!

[3]

II. Design and Consider

Liquid paper brainstorm and potential

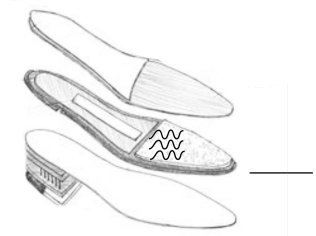
- from corrective pen with no interaction to the creative learning pen (learn what?)
- pen as controller, beads printing, scratching
- the shape of an empty pen as the electronic case, the tip spreading / scanning something + accessibility feature?
- conductive art, drawings, in experimental environment,
- visible/invisible layering and irony
- conductive wall tagging open to new drawings from the public, the output being music or visual that reflects the patchwork
- aerodynamic shape of empty pen as light diffuser in art
- squeezing 10 pens at once with different pressure tools or footsteps to see what pattern it draws(fromt he same linear interaction of squeeze and spread but with different levels of intensity) and create a sensor.
- association to the color white
- have a quick dry 'soldering pen' always on hand in a world where wires are dominant.
- have a quick dry 'isolator pen'

reveal - unreveal - paint over, exposure, wanting to hide,
the passage of time, the evolution/obsolescence of things

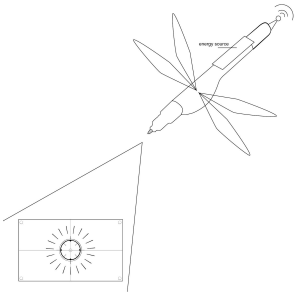
[3] from *Google Images*

III. Draw 3 examples

Draw your string instrument live performance:
Both keeping track of the movement of the artist and the intersection of drawn lines, this pen allows endless expression in a receptive environment. Explores layers and density.
[4]



Liquid pressure sole for wearables
Mark the passage of time
Wear a ‘fitbit’ without the notifications on your wrist.
Kinetic energy source



Wearable aerodynamic beacon, find landing space and help with SEARCH & RESCUE operations:
‘’Break cap in case of emergency’’
Can be used in swarms
Comes with complimentary jetpack.

IV. Create a storyboard

A: Break cap in case of emergency: user triggers a digital flare and keeps half for location
B: The dragonfly flare scans for checkpoints and relays a signal
C: The dragonfly guide helps by tracking the users location and status

[4] image from : https://www.jenniferdavieshmp.com/woven-pieces/