

Ghazaleh Afrahi

Industrial Designer

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Audia

Audia is the first acoustic concept of a family of almost 10 architectural light fixtures designed for the latest trends in working environments before Covid 19.

The goal of this project was to improve the comfort and ambience of shared task-focused spaces by offering a solution that combines low glare lighting and sound absorption in a uniform and attractive look.

Developed by the design team of Lumenwerx, Canada.

Software & Materials: Solidworks; recycled PET felt, aluminium and steel



Wind Pro

This mobile electricity generator is designed for outdoor users such as researchers, photographers, campers and scientists. It comes in the form of a portable wind turbine, enabling users to recharge their electronic devices at any location. Designed for extreme weather conditions, it is prepared for the most challenging environments; from the freezing cold of high mountain tops, to the scorching heat of the desert.

Realized by a team under the supervision of the International Innovation Company (IIC), in the Netherlands.

Software & Materials: Solidworks, Photoshop, Illustrator; Polyurethane Foam, and Wood



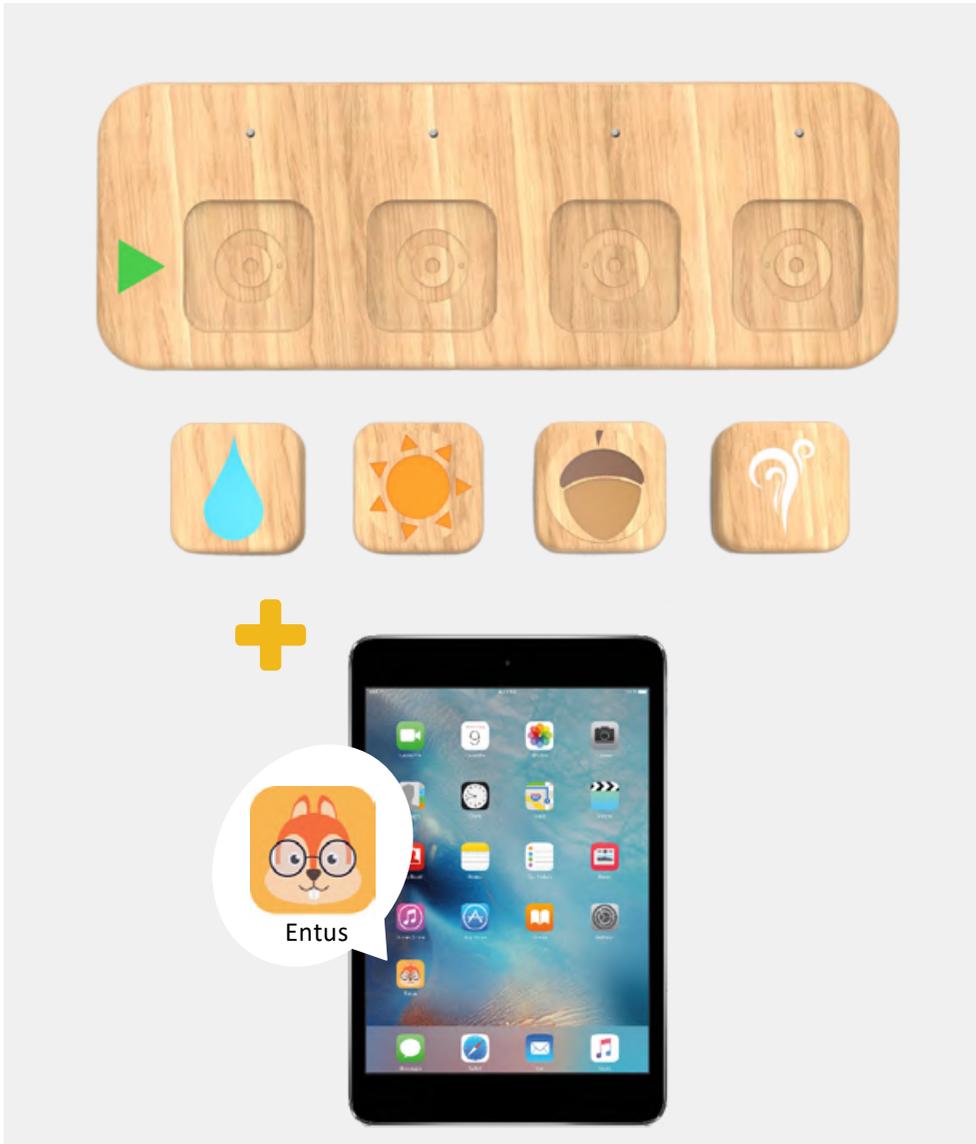
Prototyping



Development



UX Assessment

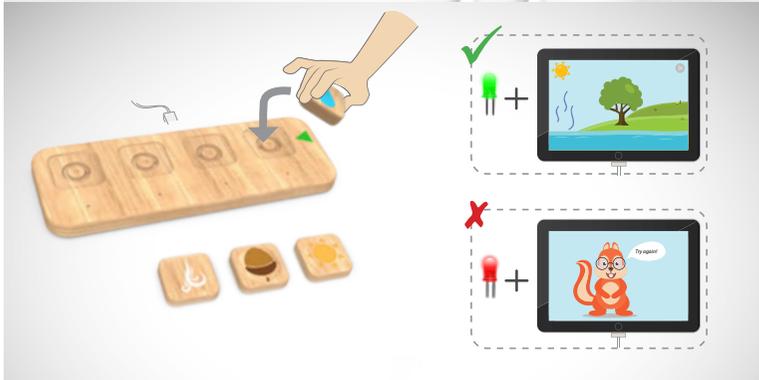


Entus

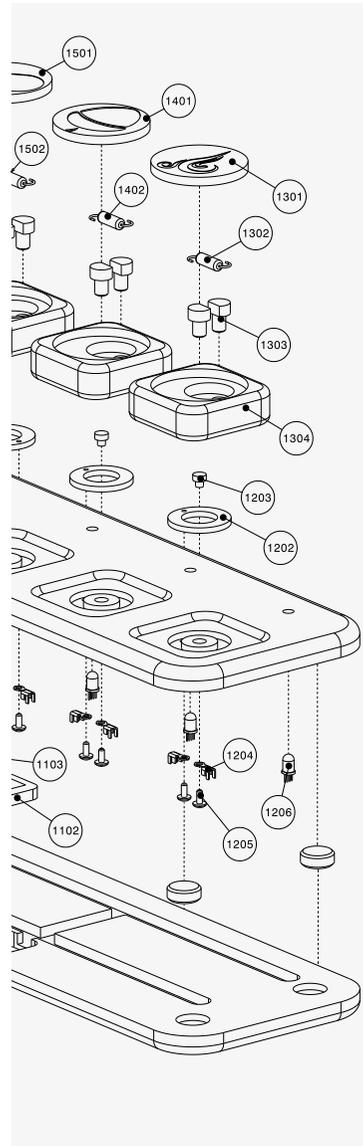
Entus is a STEAM toy that aims to introduce 3-7 year old kids to the basics of coding. This toy helps kids not only to understand the relation between the basic natural elements, but also to perceive and experience the use of 'functions' and 'sequence' in coding. 'Entus' challenges kids by providing different levels of difficulty, and encourages the learning process through rewarding.

The theme of this project was outlined by Thinkido, Italy.

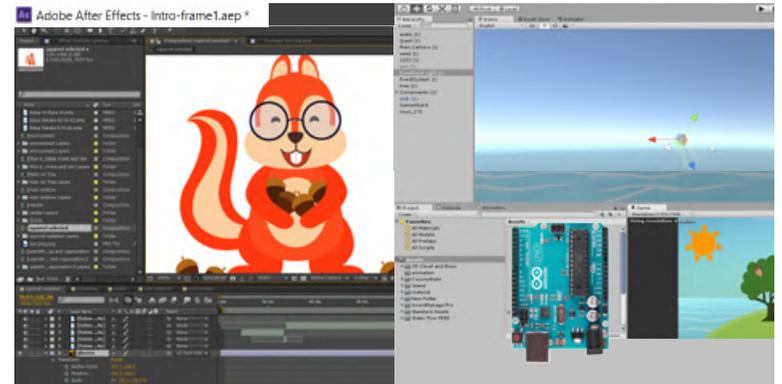
Software & Materials: Solidworks, Arduino, Unity, Keyshot, Adobe After Effects, Illustrator; Wood, Metal, and RGB LEDs



Research & Ideation



Development



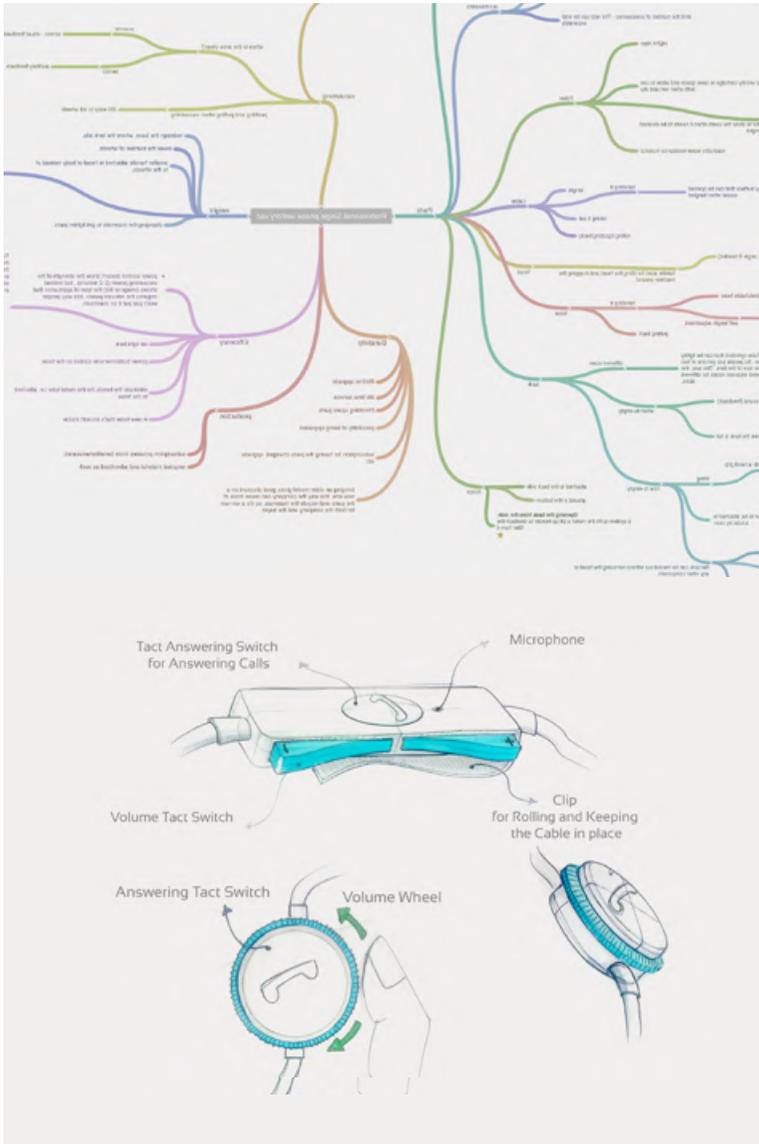
Prototyping



Best Buds

This concept won first place in the "Playful & Stunning IEM (In-ear monitor) Wired Earbuds" contest organized by a E-Tec, Hong Kong on Cad Crowd. The task was to design a trendy pair of earbuds for 13-40 year-old users, with an option of storing it in a portable format. The main features of the concept include customizability, ergonomics, user-experience, and feasibility. This design aims to provide an almost unlimited number of customizing options of the part attached to the user's head, which can be purchased online or designed and 3d printed by users.

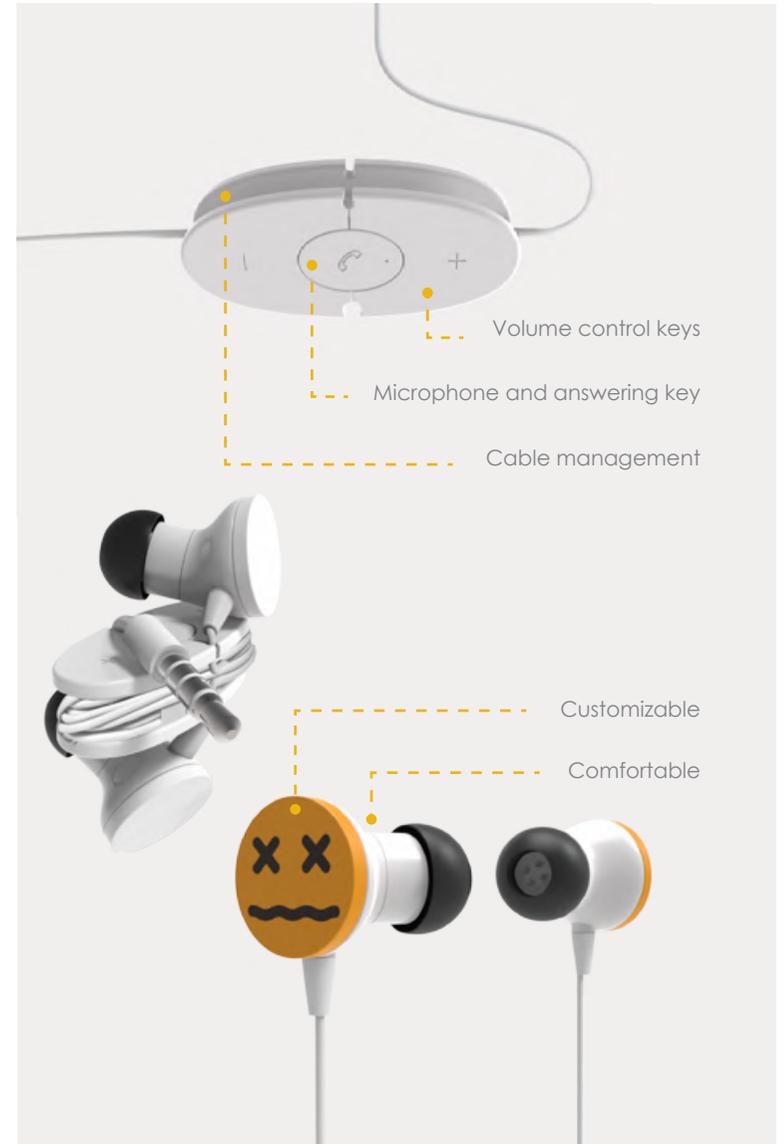
Software: Solidworks and Keyshot



Research & Ideation



Development



Prototyping

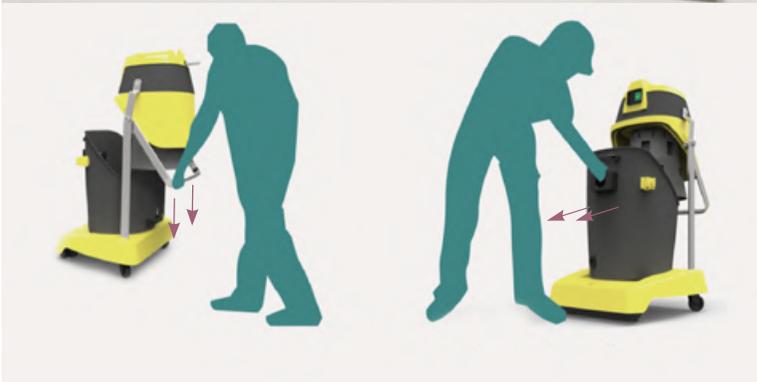


Wet/Dry Vacuum Cleaner

This wet/dry vacuum cleaner aims to improve the user's safety, interaction, and efficiency of using a conventional machine currently available in the market. The main feature of this design is a leverage system that reduces physical stress on the operator when accessing the tank. In addition, by integrating a brush in the cart, this design increases the productivity and efficiency when operating on large surfaces.

The theme of this project was determined by Ghibli & Wirbel, Milan, Italy.

Software: Solidworks, CES Edupack, Ansys Workbench, Keyshot, Illustrator, and Photoshop



Research & Ideation



Development

$$P_w = \frac{Q \cdot p_t \cdot 100}{\eta}$$

$$p_{d0} = \frac{1}{2} \cdot \rho \cdot v_0^2$$

$$F \cdot h + m \cdot a \cdot c = m \cdot g \cdot b$$

$$F = f \cdot x \cdot W/R$$

$$\sigma_{z,tot} \leq \sigma_{buckling} = \frac{E \cdot J}{L^2 \cdot (R_e^2 - R_i^2)}$$

$$Re = \frac{\rho \cdot v \cdot D}{\mu}$$

$$\sigma_{z,head} = \frac{W}{\pi \cdot (R_e^2 - R_i^2)}$$

$$\sigma_z = \frac{p D_i}{4s}$$

$$\xi = \frac{1}{[-4 \cdot \log(\frac{0.27e}{D} + \frac{7}{Re})]^{0.91}}$$

$$\sigma_{z,tot} \leq \sigma_{buckling} = \frac{E \cdot J}{L^2 \cdot (R_e^2 - R_i^2)}$$

$$\Delta p = \beta \cdot \frac{v^2}{2} \cdot \rho$$

$$\Delta p = f \frac{L}{D} \frac{\rho v^2}{2}$$

E: Tank PE
 Directional Deformation
 Type: Directional Deformation(Y Axis)
 Unit: mm
 Global Coordinate System
 Time: 1
 26-01-2017 19:39

Prototyping



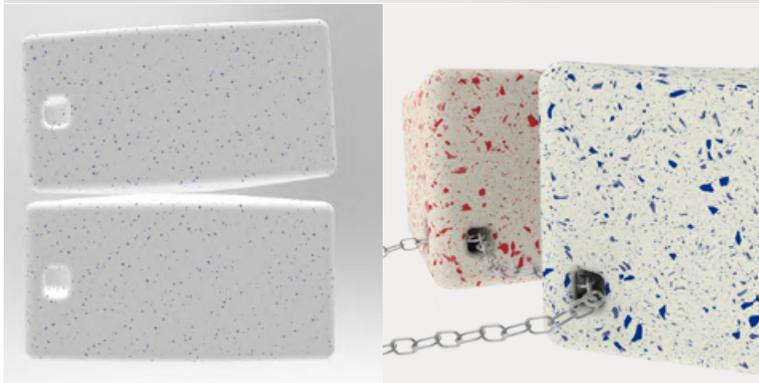
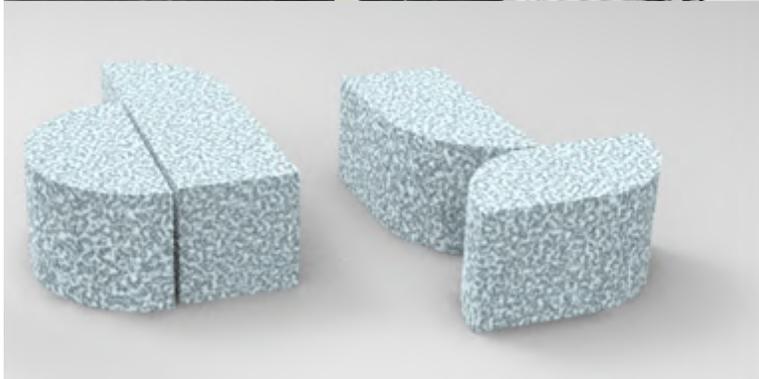
PeJaM

PeJaM (Petit Jardin de Montréal) is an interactive concept that was developed for a multidisciplinary contest requiring a collection of playful urban furniture for downtown, Montreal. Having met various requirements of the contest, it was selected among the four most innovative and creative ideas.

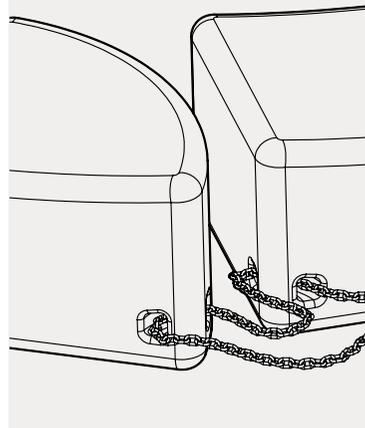
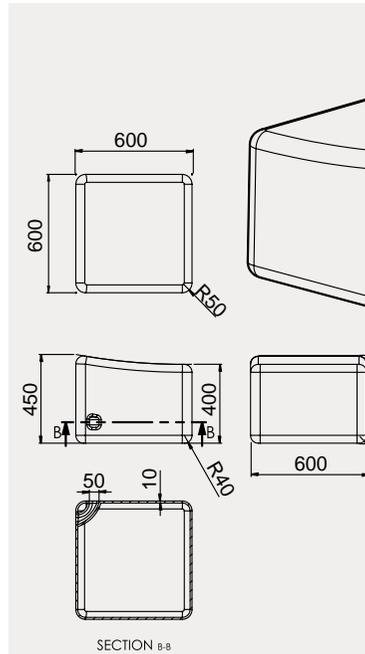
In this project we designed a concept that allows users to create various elements such as cute characters, letters, and animals by using their imagination and only two shapes of furniture.

Realized as a part of an internal design project in Precious Plastic Montreal's R&D team.

Software: Solidworks, Ansys, and Keyshot



Research & Ideation



Development



Development

Ghazaleh Afrahi

+1 438 345 9099

g.afrahi@gmail.com

www.cupodesign.com