

mindless.

“Enhancing *productivity* through rest,
relaxation and idle thoughts.”



mindless. Research

Provides mindless activities to promote creativity and innovation.

- Taking breaks reduces stress, while enhancing focus over extended periods
- (Karlesky & Isbister, 2014).
- Performing mindless activities boosts creativity and allows the brain to form better ideas (Thompson, 2003).
- Taking some time away from the task at hand helps improve focus over an extended period of time (Ariga & Lleras, 2011).

Gives the user simple tasks or mini games to play during their breaks.

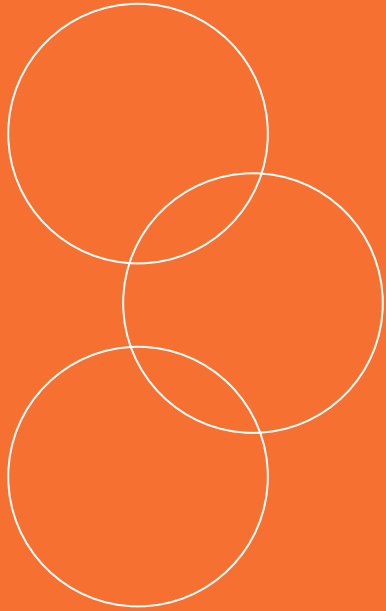
- Creativity occurs naturally while the mind is relaxed (Amabile et al. 2002).

Tasks and games provide a sense of reward or accomplishment.

- Rewards give the user a sense of progression, which in turn provides more motivation (West et al, 2013).
- Completing a simple task motivates the user to complete other, more difficult, tasks (Willis, 1995).



WORKFLOW DIAGRAM



User activates product,
specifies how long they plan
to work for.



Product decides when the
best break times are.



User is notified to take a
break.



User engages with product
and plays mindless games
during break.



Product notifies user when to
return to work.



mindless. Design Principles

- **Visibility:** LED Buttons and lights, personality and mood displayed through LCD screen.
- **Affordance:** Mindless interactive game is played with the use of buttons and lights.
- **Constraints:** Finite actions, only fulfils two purposes; taking breaks and playing a mindless game.
- **Consistency:** Familiar geometric aesthetics and shape. Functional buttons and expressive eyes.
- **Feedback:** Sound, lighting and facial expressions express mindless' emotions and mood.

mindless. Prototyping

Look

- **Low-fidelity:** simple dodecahedron built from a paper net
- **High-fidelity:** 3D printed model

Interaction

- **Arduino Board 1:** programmed to convey mindless' different expressions and moods
- **Arduino Board 2:** programmed to play a mindless game in which the user must repeat the button sequence

mindless. User Engagement

“Robots with Display Screens: A Robot with a More Humanlike Face Display Is Perceived To Have More Mind and a Better Personality”

(Broadbent E, 2013)

- The robot is your companion or pet, giving the user an emotional attachment to the product
- Much easier to interact with because of human element
- User doesn't want to neglect it, so is more likely to use the product
- E.g. Tamagotchi, Google Self-Driving Car, Baxter

mindless. User Testing

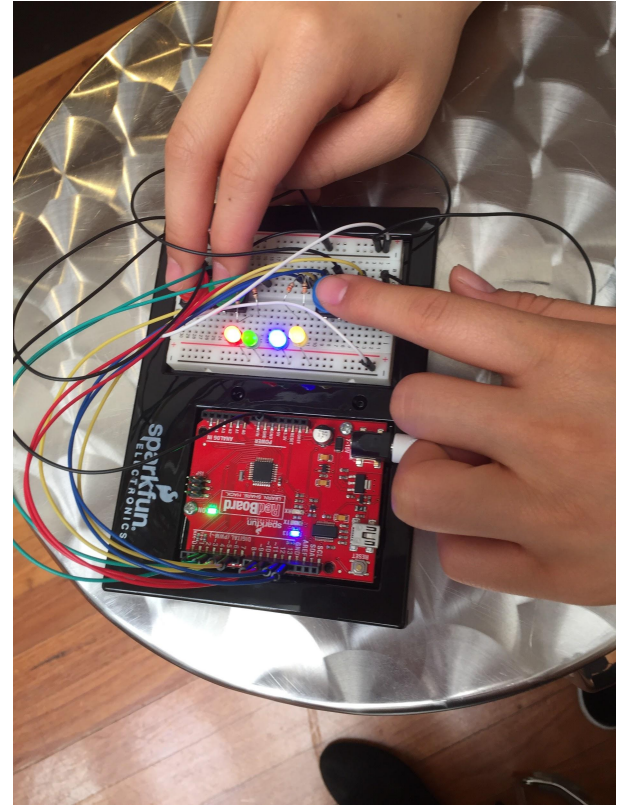
Feedback

Simon Says Game

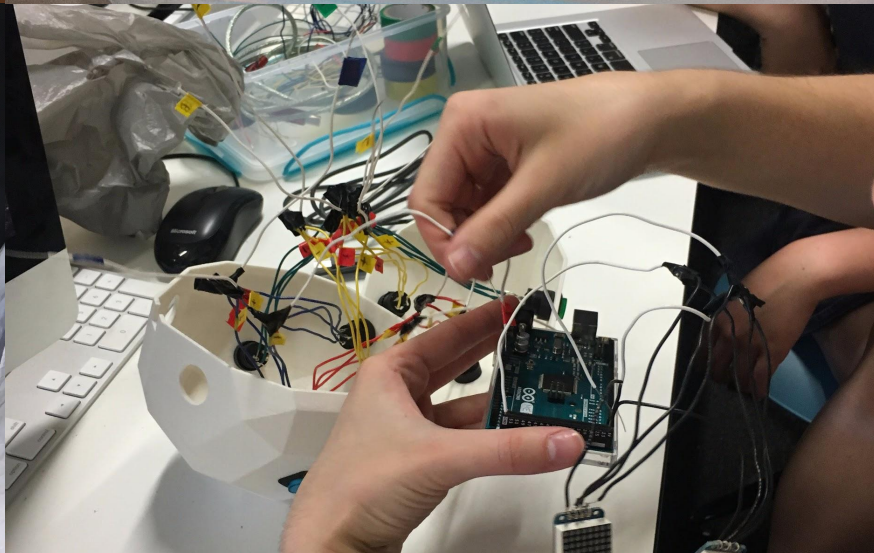
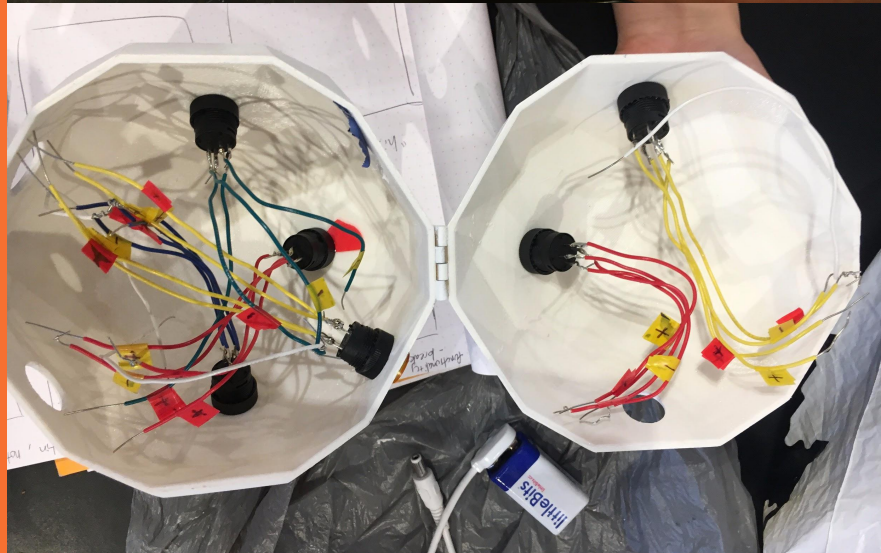
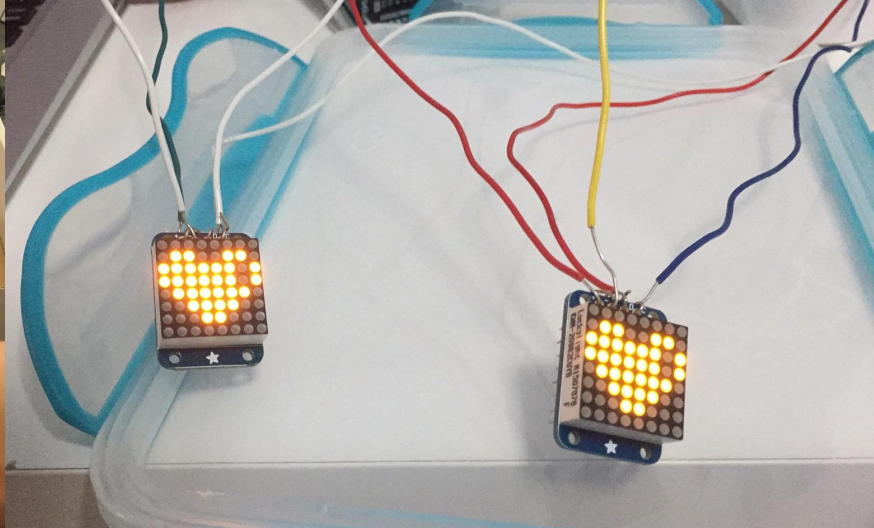
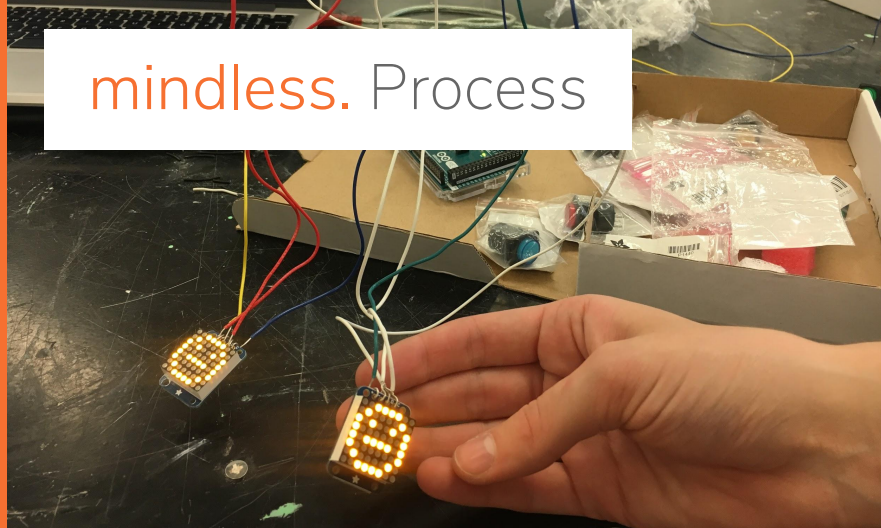
- The buzzing sound was loud and annoying, not suitable for workplace
- Too many game functions, need to be simplified
- Got bored of it after a few rounds

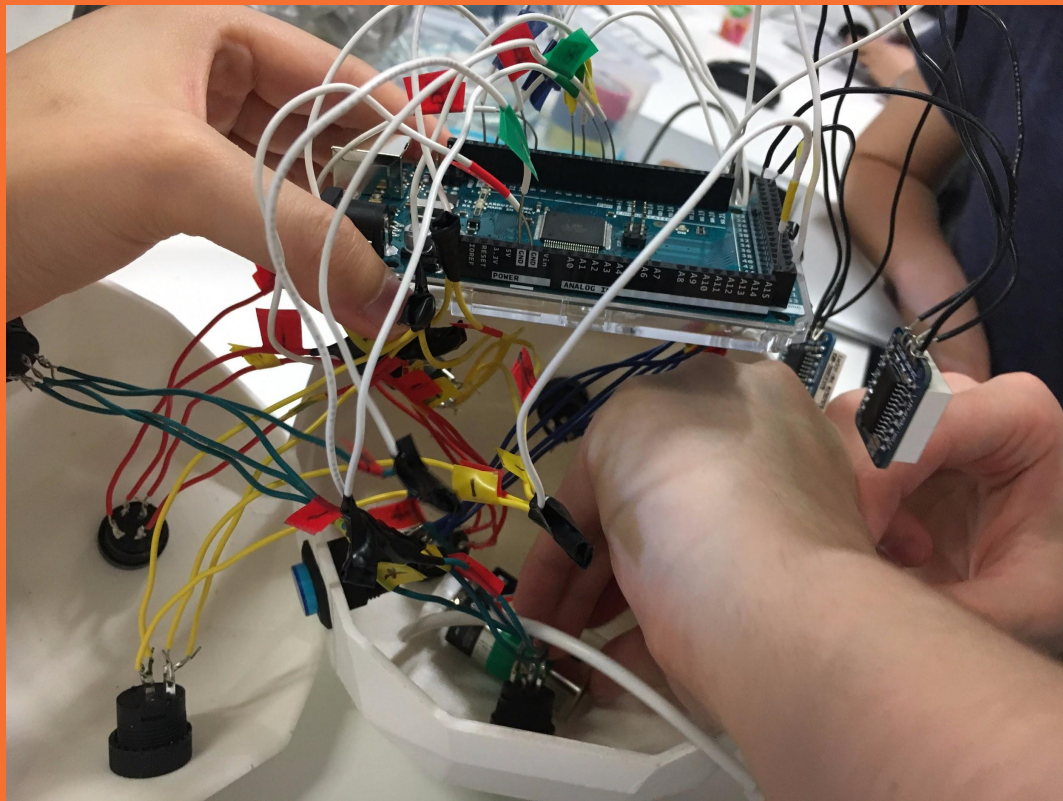
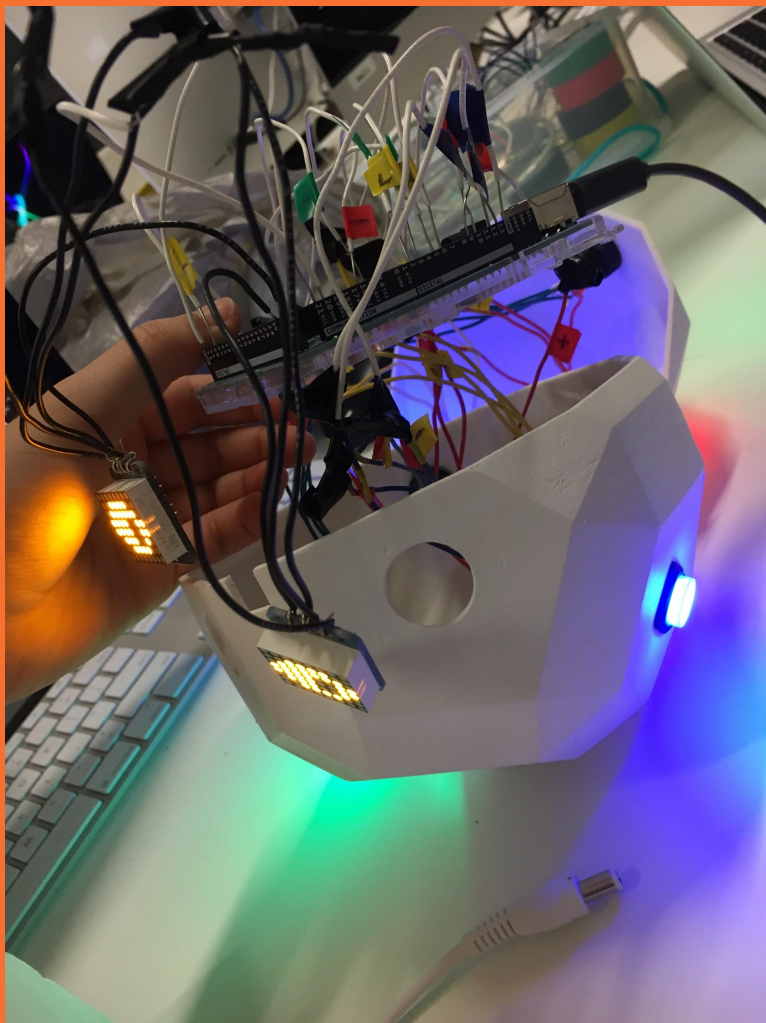
User Engagement

- Liked the product design, fun to hold and cute
- Understood the emotions conveyed by the eyes
- Personified Mindless when introduced with a name (pronouns)



mindless. Process





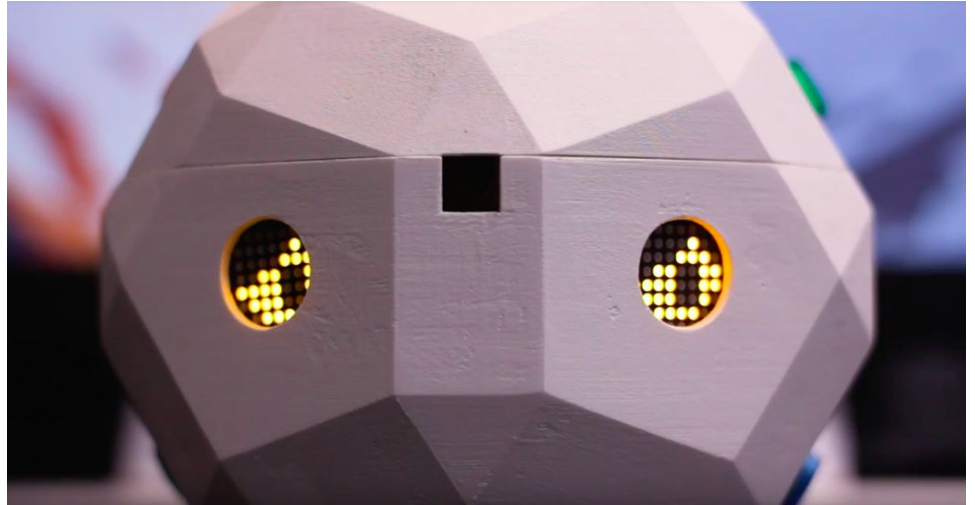
mindless. Problems

Interaction

- Couldn't get the game and the eyes to run simultaneously
- Only one or the other would work
- Compromised with limited interaction to the buttons

Look

- Hinge wouldn't stick to model
- 3d printed latch mechanism snapped off
- Base was too expensive to print



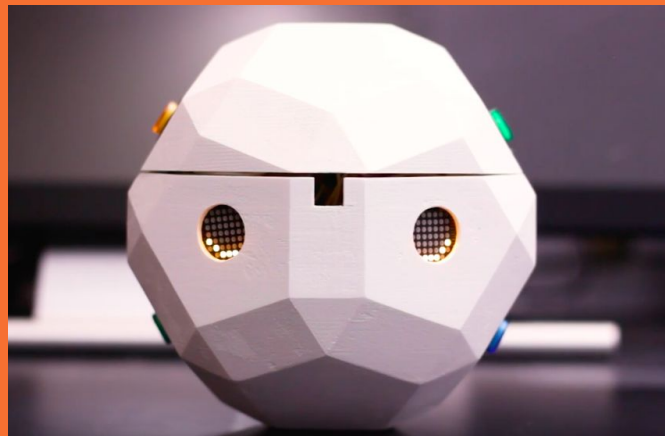
mindless. Final Prototype

Look

- **High-fidelity:** 3D printed model, slightly larger than the intended size to fit all the wiring and Arduino inside.

Interaction

- **Arduino Mega:** programmed to convey mindless' different expressions and moods through an 8x8 LED screen, and corresponding LED buttons.



mindless. User Engagement

- **Emotional:** programmed to communicate different moods and Mindless' happiness.
- **Investment:** Mindless encourages the user to become emotionally invested, and therefore interact with it on a regular basis.

