

flo



Jenny Yu | DEA 2730

- 1 Rapid Prototype
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- 3 User Experience Study
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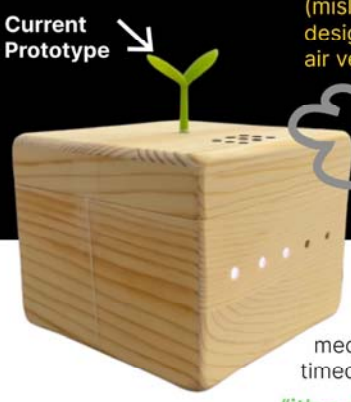
An iterative Process:

bigger + more interactive + more lights + more light colors + plastic

make translucent (hide systems) + alternative plant + no rolling

decrease plant-base ratio + intentional lighting + wooden box + green plant

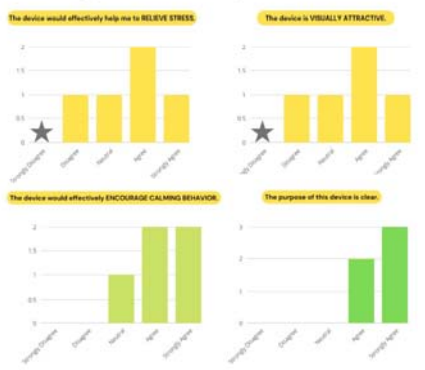
simplify interaction (misleading plant design) + increase air vent



3.75" x 3.75" x 3.75" box occupies little space + clearly visible air vents hint breathing mechanism + aesthetic minimal design + purposely timed, easy-to-follow feedback promotes refocusing

"it's a cute little thing to have on the desk for stress-relieving. the dancing plant immediately cheered me up."

User Experience Study (2 male, 3 female; aged 18-20; prototype 3)

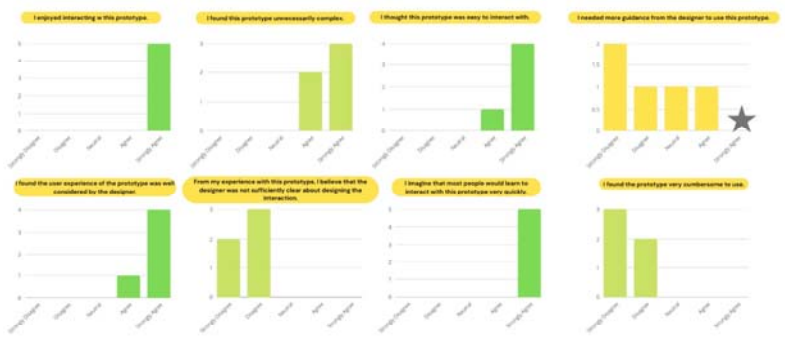


UX (right): Key findings were that device attractiveness and effectiveness were ambiguous, but people's first impressions connected the device to calming purposes.

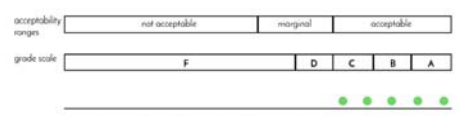
SUS (bottom): Participants found the interactions to be well-designed and easy to interact with, but required some guidance. SUS scores ranged 72.5-100 (x=86.5) and are shown below.

System Usability Scale Study

(2 male, 3 female; aged 19-21; prototype 4)



"It is easy and convenient to use, yet produces a satisfying result. I like that there is immediate feedback so I know it received my actions."



Abstract

College is a time during which multidimensional changes made potentially amplify a sense of loneliness. A 2022-2023 survey by Sodexo shows that over 50% of college students report being afflicted by isolation. Through mind mapping, I explore factors contributing to the exacerbation of isolating situations. Threading commonalities in pain points through interviews and cultural probes. In particular, I address those isolating situations during late hours of the day confronted by difficult challenges amid heavy workloads, as identified through commonalities found from interviews and cultural probes, responding to key pain points (difficulty concentrating, anxiety, and loneliness) to guide informed design choices. Using observational studies, UX studies, and SUS studies, I iterate upon prototypes to advance key outcomes (a working, interactive device, encouragement of positive habits for wellbeing, a familiar device that integrates into the user's lifestyle). Thus, I introduce flo: a device which uses humidity sensors to detect deep breathing to produce calming movements and light patterns. Deep breathing is an effective intervention for alleviating stress and anxiety, as well as has positive benefits for physical and mental wellbeing. Flo encourages deep breathing by generating pleasing, timer-based feedback that incrementally recenters the focus of users, enabling them to return to a psychological flow (flo) state of mind to resume productivity. In the future, I aim to maximize the calming effect of the sensory experiences that are generated by the current prototype. Flo has contributed to the design of products that fit into various spaces and lifestyles to make better complex situations of isolation.

Stills from Role Play



Anne, 19, has a heavy workload and often works alone. Anne goes to the study lounge, where she sees flo on the table. She thinks it looks nice as decor.



Anne is stressed and finds difficulty concentrating. A post-it next to flo says, "Take a deep breath." She does, and the light slowly brightens.



Enjoying the calming glow and sway of flo's leaves, Anne, intrigued, wonders what will happen if she takes another deep breath. She takes a deep breath.



The light turns purple. This deep breathing exercise and delightful surprise are a nice distraction and help Anne refocus through her busy schedule.

flo offers a breath of fresh air to provide clarity in lonely hours of struggle.
steady breath, steady flo.