

DumDesk

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The Challenge

A black and white photograph showing a person from the side and slightly from behind, wearing a virtual reality headset. They are looking down at a computer monitor which displays a video conference with multiple participants. The person appears to be in a classroom setting, with desks and papers visible in the background.

Design and envision a device that will make the in-person class experience better and more immersive than class via Zoom.

The Approach

Weigh the benefits of the **in-person versus virtual** experiences to understand what each experience has to offer and what each lacks

In-Person	Virtual
Face-to-face engagement – arguably the most natural form of communication	Super flexible, ability to attend class regardless of individual circumstances. All you need is an internet connection.
Social cues are easier to read (e.g., body language and facial expressions)	Recorded meetings
Incentivized to stay engaged/not prone to many distractions (you can't turn off your camera in-person!)	Digital collaboration is seamless
Opportunity for in-person demonstrations not otherwise possible virtually	No physical classroom space is required
Opportunity for in-person collaboration	Everyone has the same "seat" in lecture, student comments via the group chat and hand-raising are all equally recognized
Fosters a sense of belonging rather than a feeling of disconnectedness	Increased privacy and comfort
Fosters a sense of professionalism among both professors and students (wearing pajamas in class is a no go)	Never forget names
Exams are easier to proctor (cheating is less of a concern)	Direct messaging valuable for private matters
Technological mishaps often will not compromise a class session	

Research

Conducted interviews and distributed an online survey

(<https://docs.google.com/forms/d/17DdRd-RUpX2-vWD0jTcYLdh5MrnG5PPErds7oTnghI4/edit#responses>) to inform my observations and potential design solutions

3 Key Insights

- People prefer in-person class over Zoom, but often opt for the virtual format because of (1) convenience and (2) self-proclaimed laziness
- In-person class maintains students' attentions better than Zoom
- There is a strong desire for more student discourse, participation, and a more inclusive environment

My Thought Process

While we can't pry anyone from his/her room, we can try to cultivate a more immersive in-person experience by providing students with a similar comfort level and egalitarian structure that Zoom has to offer.

Ideas/Requirements

- Comfortable + functional workspaces incentivize in-person attendance
- People are more approachable when you know their names
- Flexible seating arrangements are conducive for collaboration
- Display of student "status" would foster a more inclusive environment

Proposed Solution

Based on the said requirements, the device should be personalized to each student...

Solution: A smart desk!

Ideation

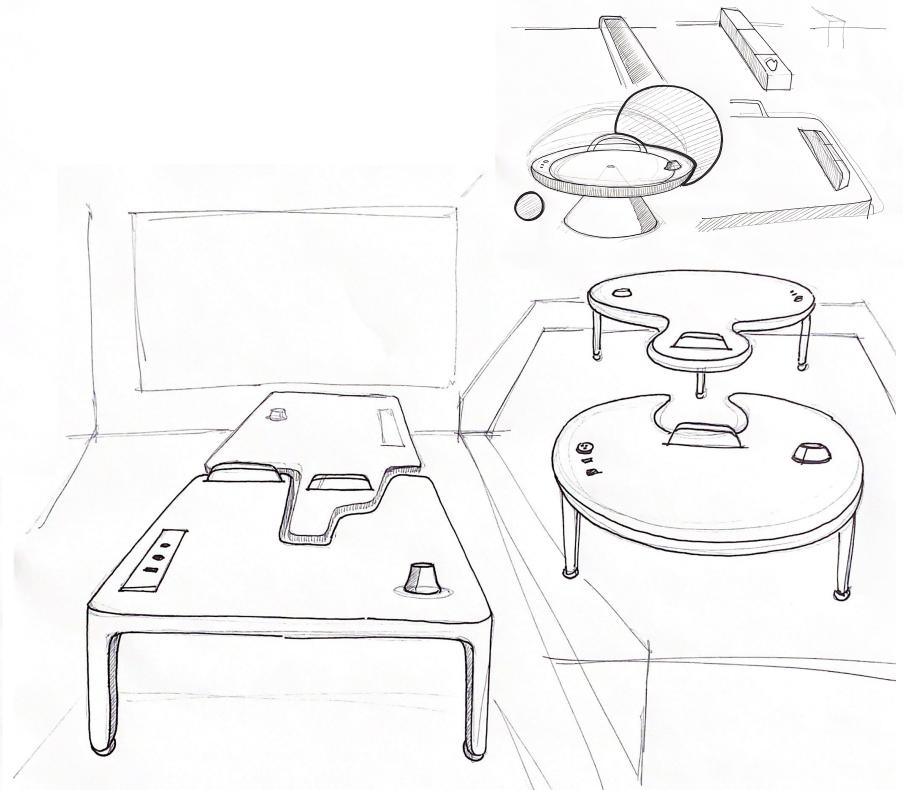
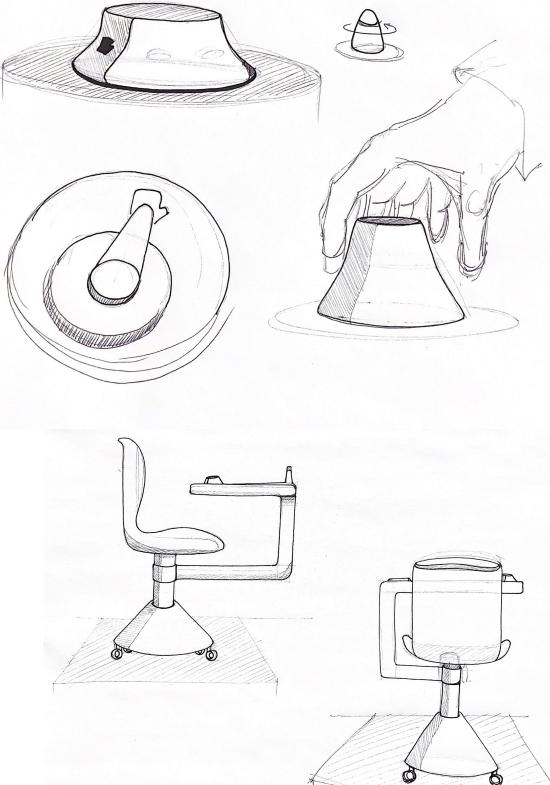
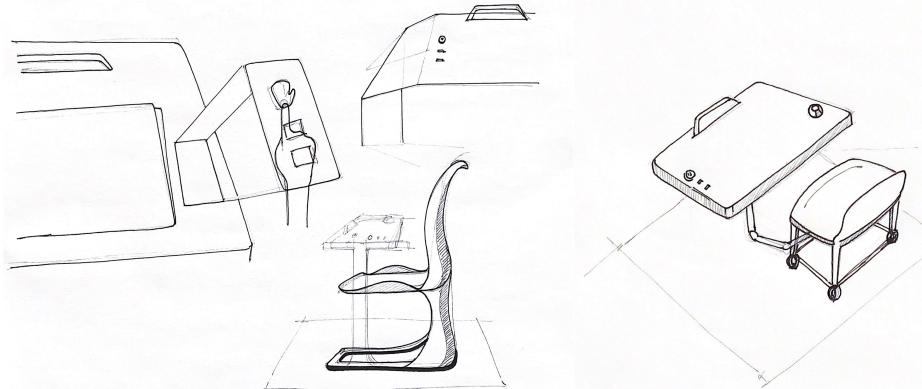
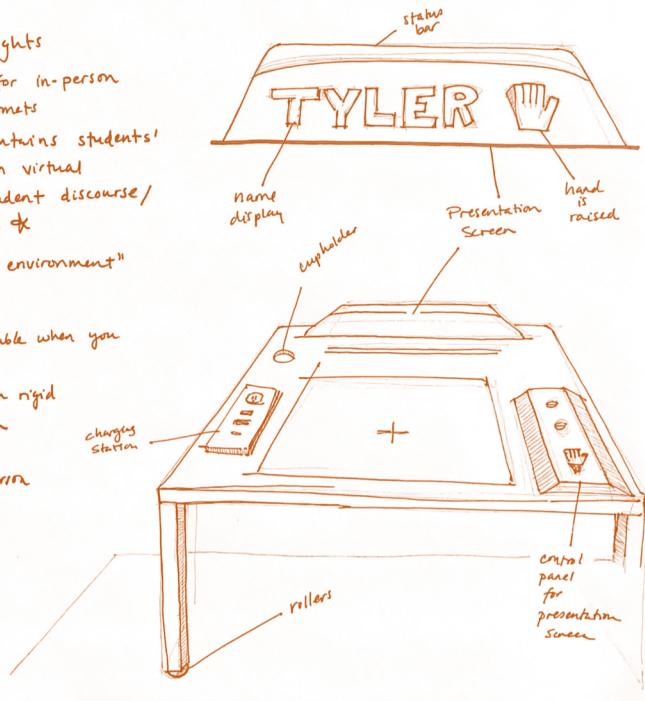
3 Key Research Insights

- Strong preference for in-person class over virtual formats
 - In-person class maintains students' attentions better than virtual
 - Desire for more student discourse/greater participation *

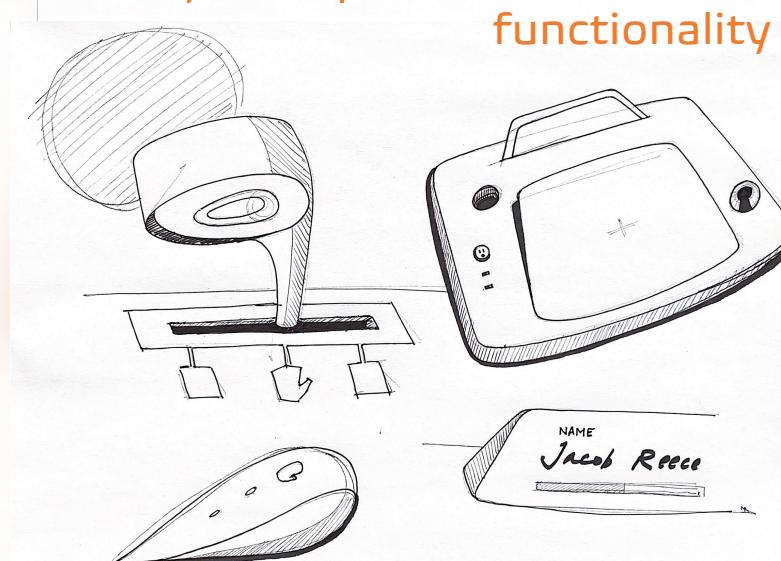
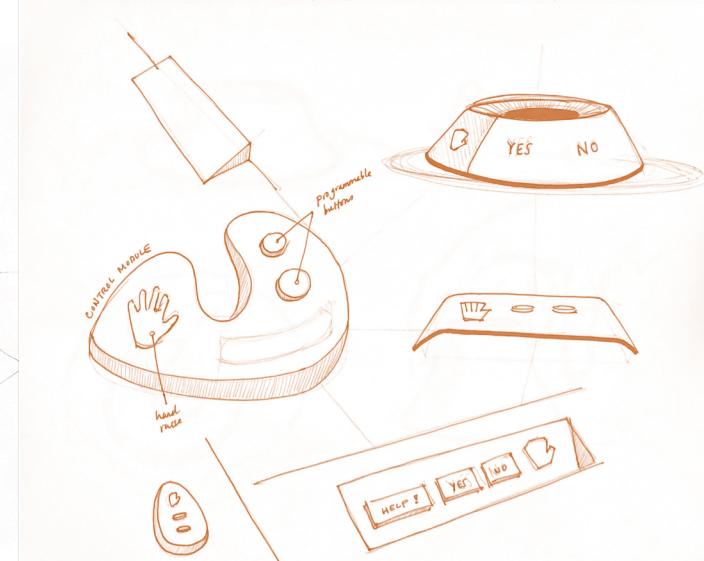
→ "more inclusive environment"

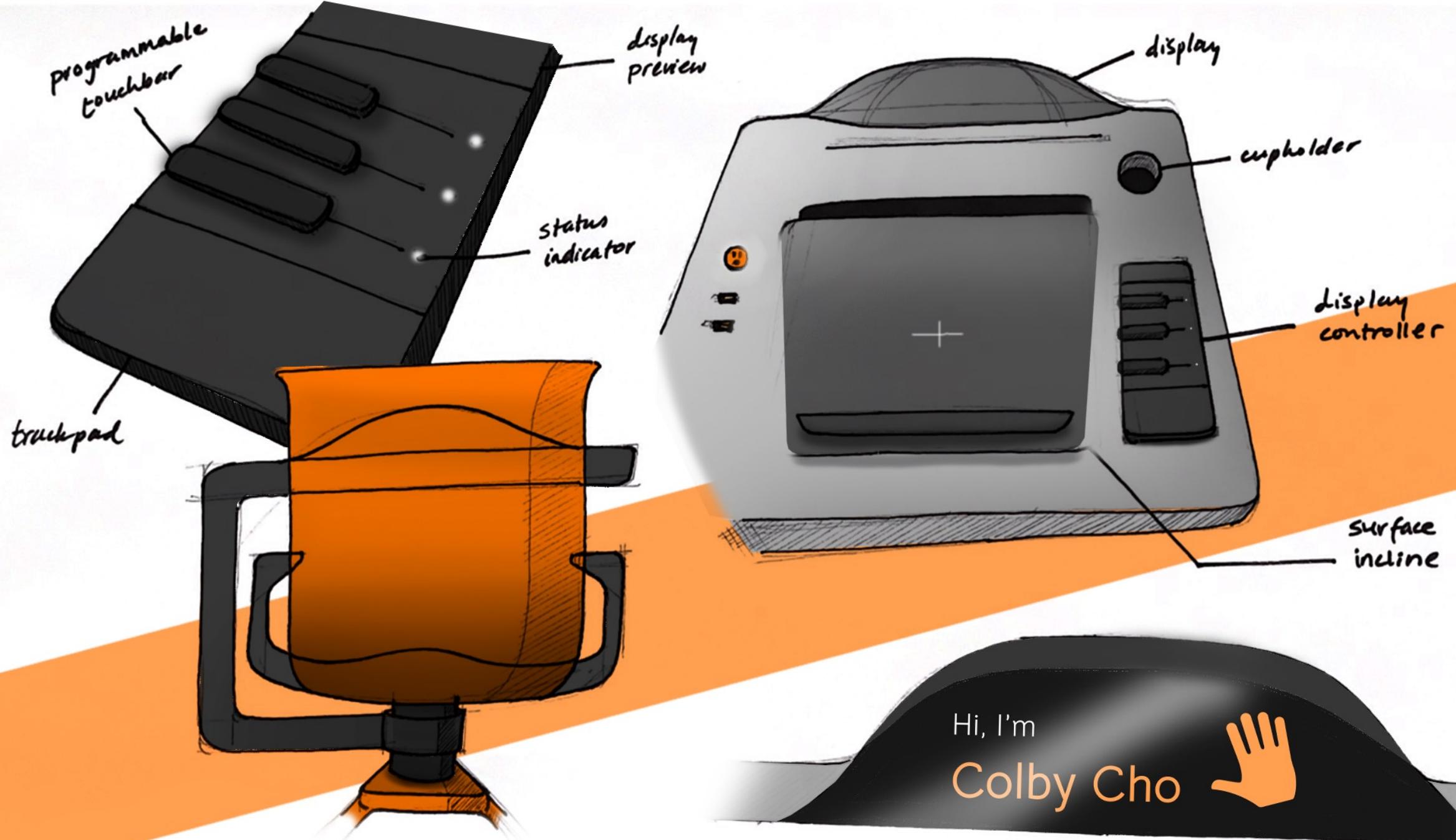
Ideas

- People are more approachable when you know their names
 - seating arrangements when rigid do not foster collaboration
 - comfortable + functional workspaces incentivize in-person attendance



Focus on key touchpoints, comfort, and functionality





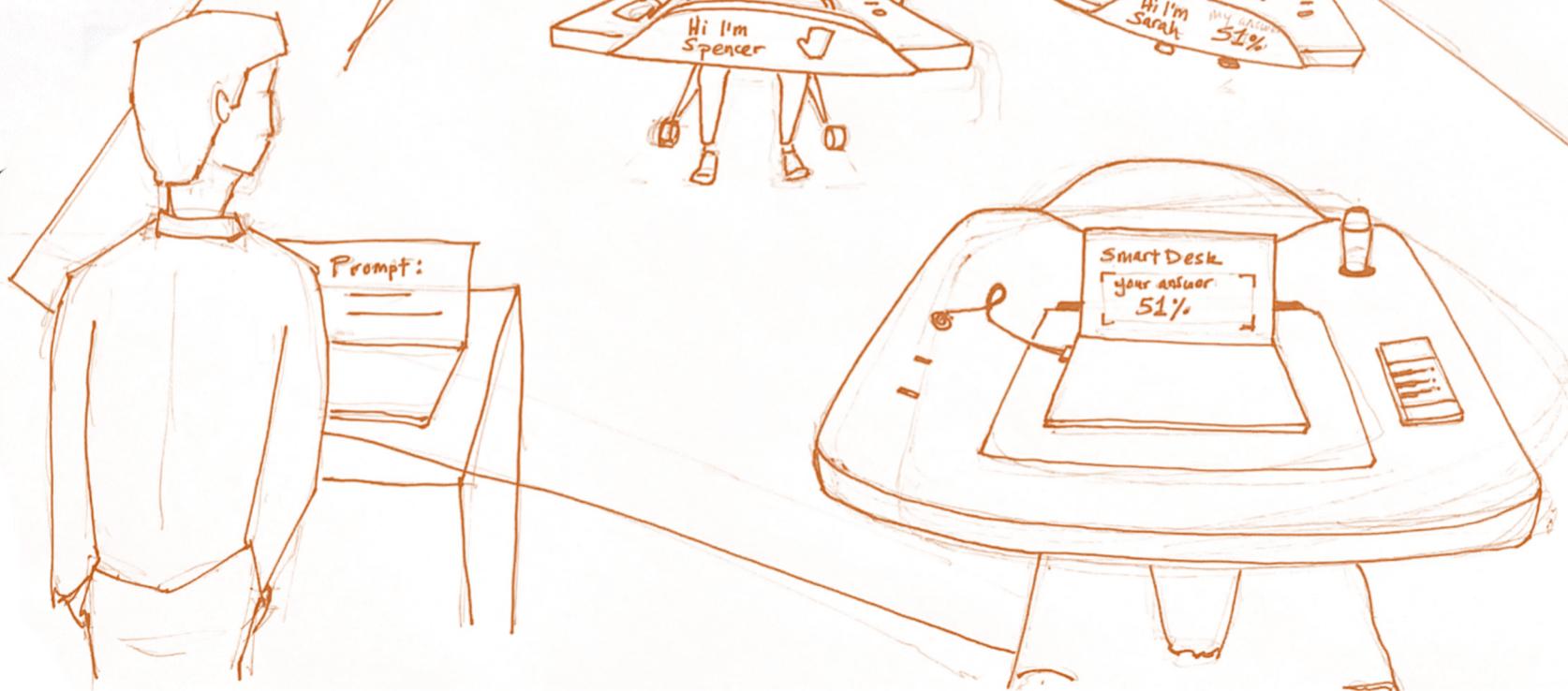
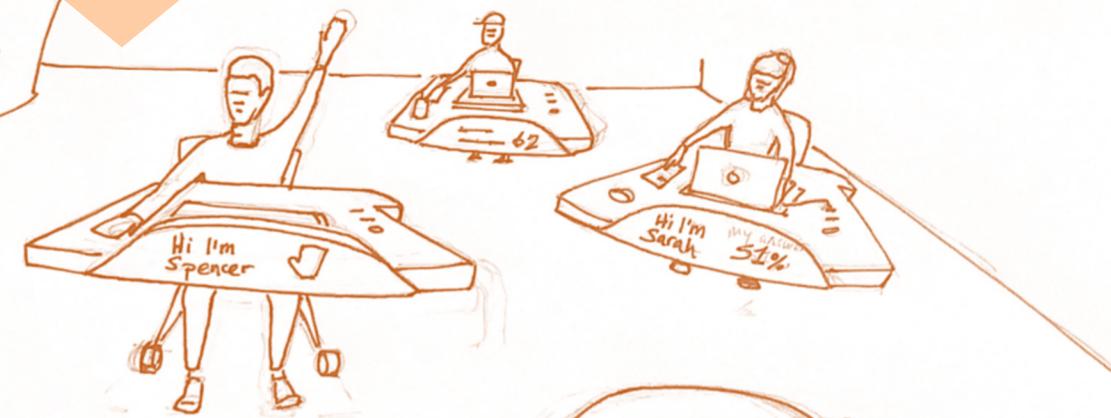
Hi, I'm
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Storyboard



Before and after: Transitioning to a more inclusive classroom environment





Thank You!

Tools used: Adobe Photoshop, Figma, SolidWorks, and Keyshot

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