DanKChen

http://danchen.me
dan@danchen.me

BIO

Dan Chen is a designer and engineer. He creates working prototypes to explore new and existing ways of interaction and utilizes research to gain insights into human behavior in a fast-paced working environment. From concept to production, integrating both hardware and software, Dan possesses deep knowledge of both worlds and can effectively weigh trade-offs to assist the team in making both long-term and short-term decisions for the product roadmap. Working in the fields of interaction design and product design, Dan explores novel methods of interaction and communication through research, hardware, software, and modeling, inviting thoughtful evaluation and implications.

EXPERIENCE

META
Hardware UX Prototyper.
Oct. 2019-now

Ray-Ban Story Smart Glasses: Responsible hardware interaction design (including thermal management, battery level monitoring, and sound design) and hardware component selection.

Quest Pro & Quest 3: Hardware interaction design. Exploring device I/O strategies and potential risks through the development of working prototypes for AR/VR. Responsible for hardware user experience (UX), creating interaction models, defining I/O architecture, and implementing UX mitigation strategies. Collaborating closely with the ID, UXR, UI, firmware, EE, ME, mobile app, sound design, and production teams to ensure design integrity, consistency, and craftsmanship.

CULTURE BIOSCIENCES
Senior Engineer
2018-2019

Design and manufacture a modular rack system for bioreactors exceeding 250ml in capacity. This system includes custom feed bottles, impellers, and incubators. Additionally, design, test, and deliver an auto-sampling device and real-time monitoring solution for Verily.

Conduct human factor studies on existing bioreactors and utilize research insights to design and prototype hardware for manufacturing, including injection molding, plastic blow molding, and sheet metal components. You will be responsible for developing and validating automated, user-friendly bioprocessing solutions with custom hardware and software in collaboration with the engineering team.

SCRATCH
Industrial Design Lead
2019

Developing the first-generation Scratch hardware interface for use with Scratch's graphical programming language. This project involves concept generation, art direction, and the creation of hardware prototypes to provide guidance for the final stages of firmware development, electrical engineering (EE), mechanical engineering (ME), and industrial design (ID). The goal is to design and prototype the hardware to seamlessly integrate with the Scratch programming environment for eventual manufacturing.

JOHNSON & JOHNSON
Senior Interaction Designer
2017-2018

Engaging in pathfinding efforts for Listerine and Neutrogena products while also developing internal productivity tools. Collaborating closely with human behavior scientists, design researchers, and market insight researchers to create tools that promote long-term health and well-being.

THE ECONOMIST GROUP
Product Design Intern
2016

Designing products that engage users in activities related to elections, data visualization, and games.

IDEO
Senior Interaction Designer
2012-2014

Creating interaction models for both enterprise and consumer devices and services. Visualizing information and generating assets to convey design principles, assessments, and processes. Conducting pathfinding efforts with storytelling and developing working prototypes for both consumer and enterprise products.

MORNINGSTAR
Designer & Developer
2008-2010

Successfully launched ETF screeners. Creating visual interface tools to inform and educate users about their ETF selections. Additionally, designing and programming internal communication and productivity tools.

UNIVERSITY OF CONNECTICUT
Designer & Developer
2007-2008

Responsible for print assets for museums, performing arts Center, & University administration publications. Creating content management system and custom registrations database.

SPEAKER

TEDX BOLOGNA
TEDX VIENNA

SKILLS

3D Modeling / Basic Unity
Manufacturing: Injection molding, blow mold & sheet metal.

Scripting / Programing

Information Design

Hardware Interaction Design

Physical Computing

Digital Fabrication

EXHIBITIONS

Mori Art Museum
Cube Design Museum
V&A Dundee design museum
Vitra Design Museum
Seoul Museum of Art
MAK Wien
Design Museum Gent
Copernicus
Science Centre

EDUCATION

MIT
Master in Media Arts & Sciences

RISD
Master of Fine Arts in Digital Media

UCONN
BFA in Communication Design

DanKChen

http://danchen.me
dan@danchen.me

RAY-BAN STORIES

Working with Ray-Ban's & Meta's industrial design team on user interaction experiences by providing working hardware and firmware prototypes. Facilitating product design decision, explorations and risk assessments. Creating user and developer facing interaction IO map/specification for XFN project team (firmware, hardware, APP, advertising, OOBE, legal, UXR). Working with XFN partners on battery, speakers, bluetooth, camera, camera firmware, and assistants on user interaction strategies .

Validating details such as touchpad, capture and sound/earcons experiences with designers & UXR. Designing all LED patterns and signaling.

DanKChen

http://danchen.me
dan@danchen.me

EXHIBITION WORK

Form, emotion and mental commitment

Explore human and robot interaction through the subtlety of form, color, and movement. Understand the ways that the device could evoke emotion and memory. Explore the space between comfort and discomfort, real and virtual.

Interaction

Explore the unconventional interaction model, driven by emotion, memory, intuition instead of logic and data.

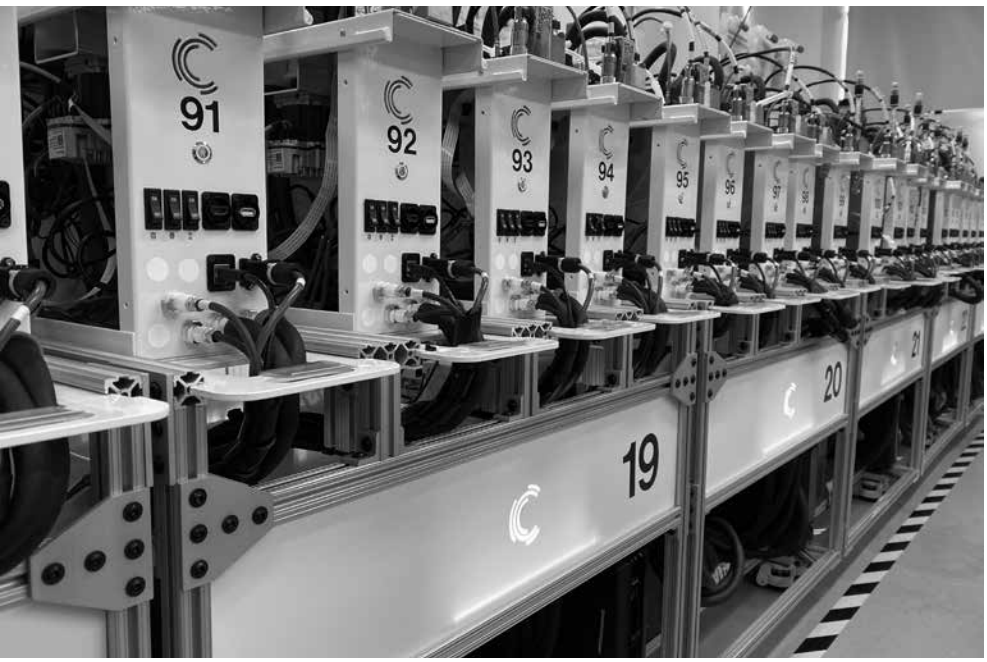
These are NOT renderings. These are fully functional devices with pressure sensors and servos. Some of them are rates for certain duty cycle count of human interaction.

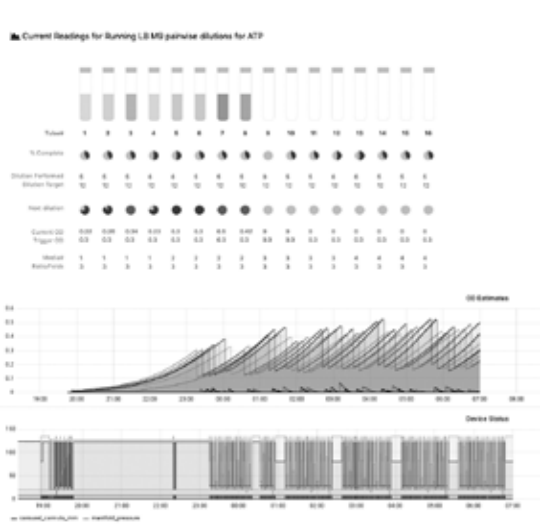
Videos Documentations

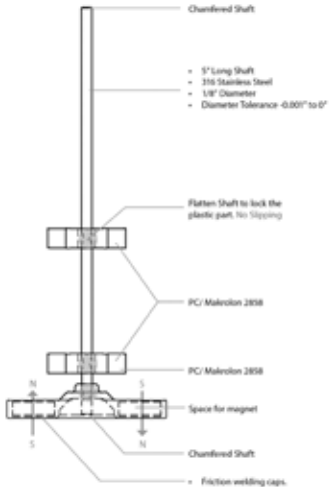
https://www.youtube.com/watch?v=TURmmUiuE18 https://www.youtube.com/watch?v=q6qegA_q334 https://www.youtube.com/watch?v=hfBWRkEYM

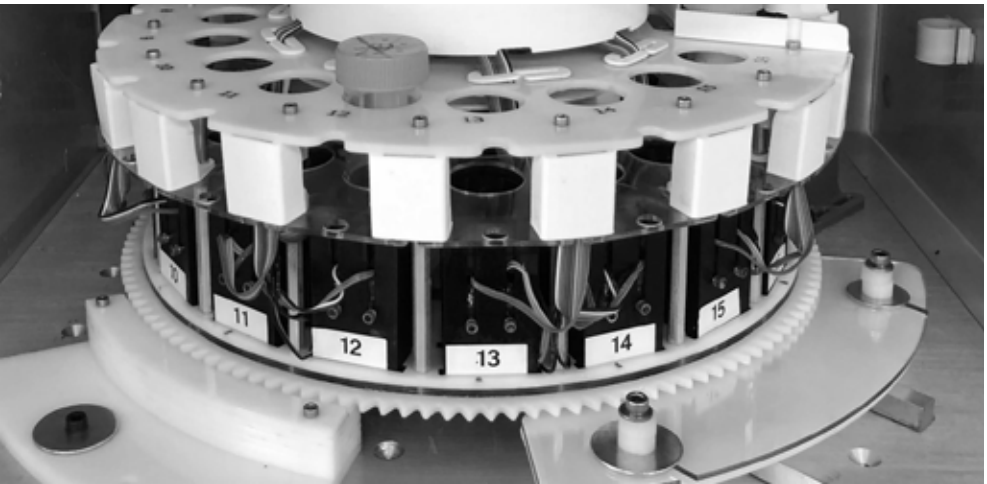
DanKChen

http://danchen.me
dan@danchen.me









CULTURE BIOSCIENCES

Responsible for engineering custom automated lab testing equipment, integrating and testing software and hardware for deployment and developing tools to improve bioprocesses such as sampling, tracking, and monitoring.

Human Factor

User research
Prototype Validation
Process Optimization
Lab Space Planning
Lab Safty

Mechanical Design

Bio-Reactor Design
Bio-Reactor Clusters Design
Design for manufacturing in house
Design for manufacturing oversea

Manufacturing

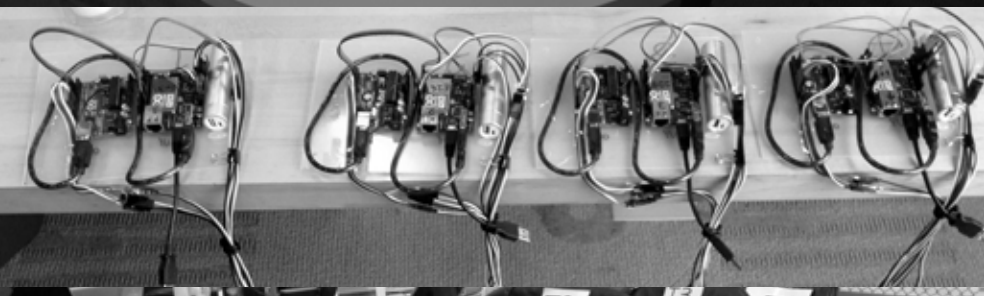
Sheet Metal, Injection Molding, Blow Mold, Assembly

Video Documentation

https://www.youtube.com/watch?v=GfnydcE6C4I

DanKChen

http://danchen.me
dan@danchen.me



IDEO + STEEL CASE

Future of meeting space

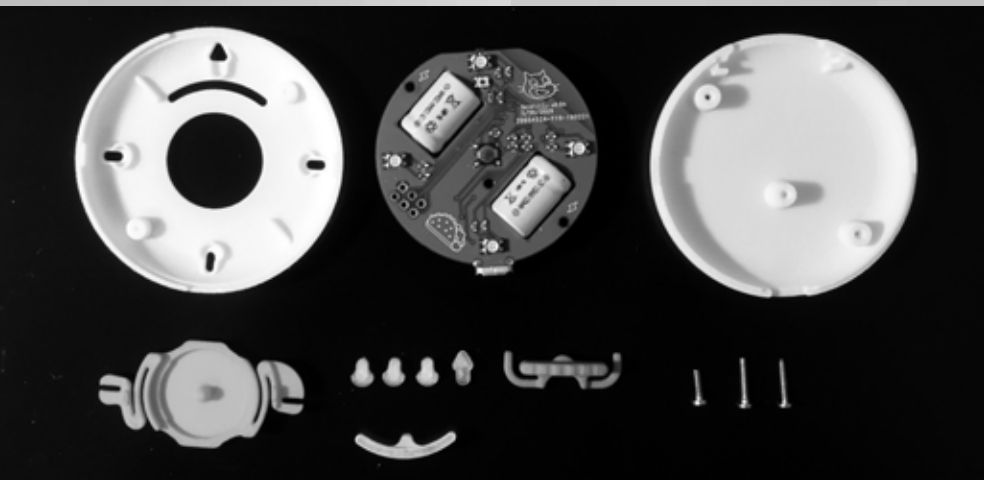
Explore concepts and prototypes for the future of meeting spaces, using sensors to collect data and output useful analytic. I created chairs that sense body movement, identification scanner with NRF, arm reset input, and haptic feedback. I also created a table-sized user interface that displays the data, complete with embedded microphones and cameras that transcribe the meeting.

Videos Documentation

https://www.youtube.com/watch?v=4XPVE9EsT7A

DanKChen

http://danchen.me
dan@danchen.me



SCRATCH
MIT MEDIA LAB

Scratch Go is the first official hardware interface with the Scratch software platform. I was responsible for industrial design, mechanical design, and manufacturing.

Help the team explore and narrow down the function set and a form factor that inspired creativity in building and programming. Design to be playful and educational.

I also designed the attachments for the Scratch Puck. The design makes it easy to attach to users' creations.

Mechanical Design
Create a robust casing to house the PCB that is shock-resistant but easy to repair.

Manufacturing
Injection Molding
PCBs

Video Documentation
https://youtu.be/Mqd4ZPsrcPE