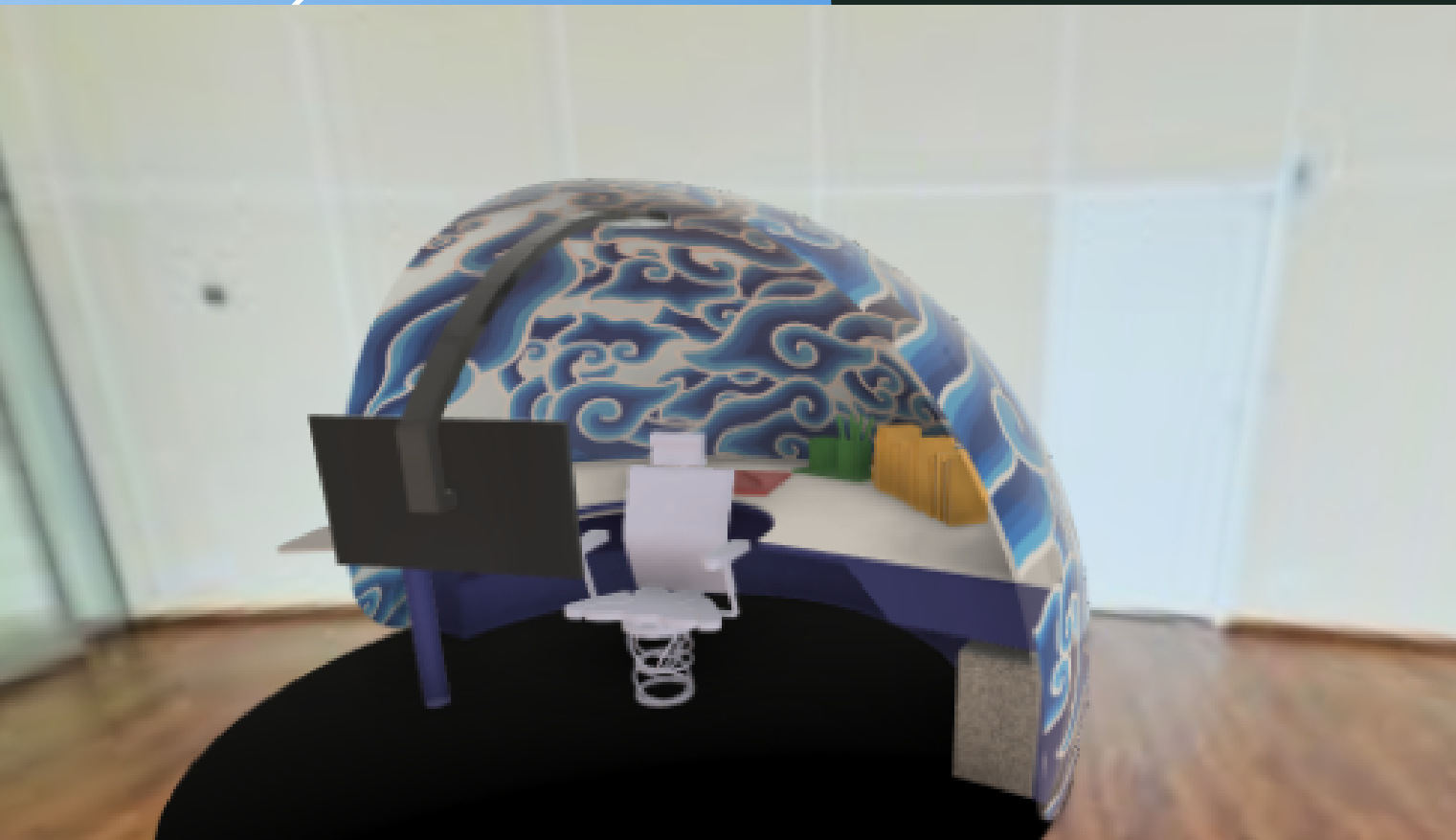


SUTD X UPM.

TEAM 3

EUNICE KWOK, TAN ZEN SHEEN
FERNANDO HIERO, BERNIKE AGE



The Productive Dome

Authentic Personal Space Chair

Company

| SUTD UPM Studio

Lead Designers

| Zen Sheen, Eunice Kwok,
Fernando Hiero, Bernike Age

Project Location

| Singapore, Indonesia

Project Link View

Entry Description

The Productive Dome is a Batik-patterned retractable dome that serves as a multifunctional workspace. Targeting the new normal of working from home in the COVID-19 pandemic, the design helps to boost productivity while suiting various user needs. With comfort in mind, the seat features a patented design that supports a cross-legged sitting position. Users can adjust their seat, monitor, table space, and lighting rotationally to make use of the spherical space. Privacy can be assured as the dome can be closed for users to work, study, eat and watch movies privately within a compact 9.62m² space.

Problem Scope and Requirement

Targeted User

Students and Adults aged 18–50

Problem Statement

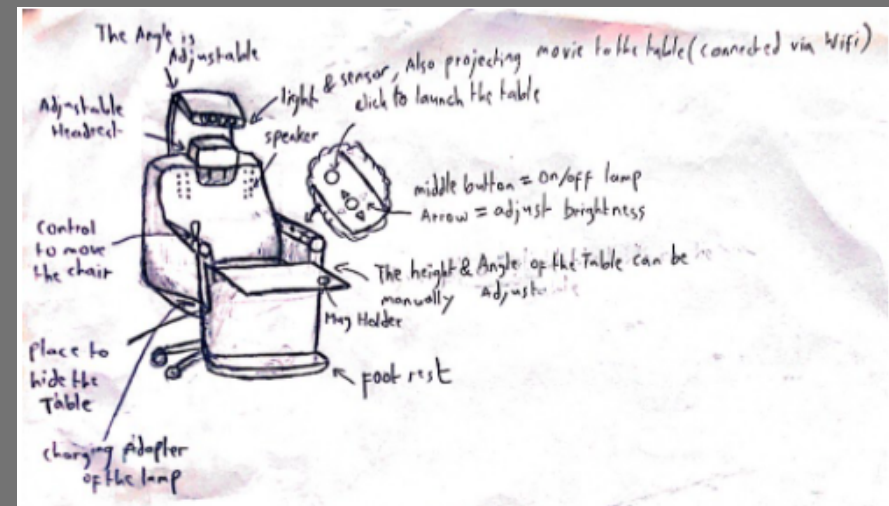
How might we use **technology** to design a chair that boosts the **learning** and **productivity** of college students and working adults aged 18–50?

Requirements and Constraints

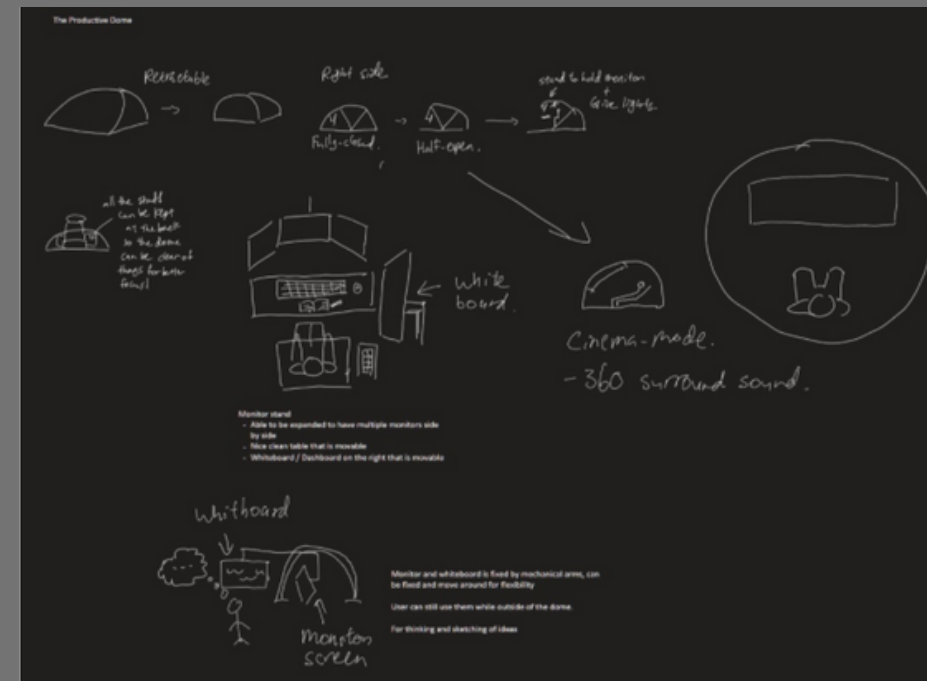
Accommodates the user with **multifunctional** features so that they can conduct their activities more easily, within the same space.

Design Process – Brainstorming

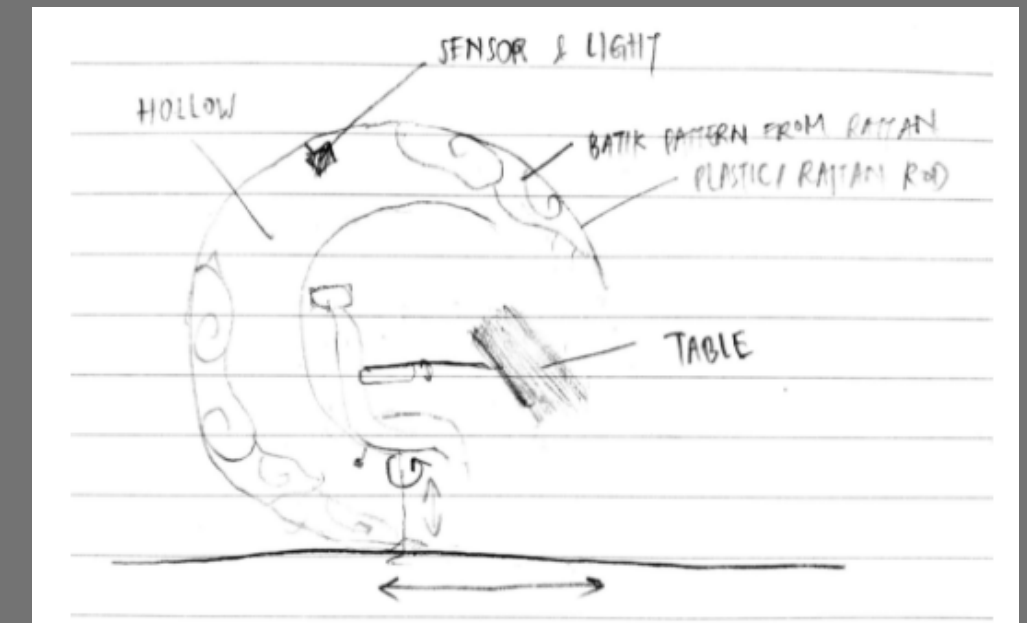
Design 1: Smart Office Chair



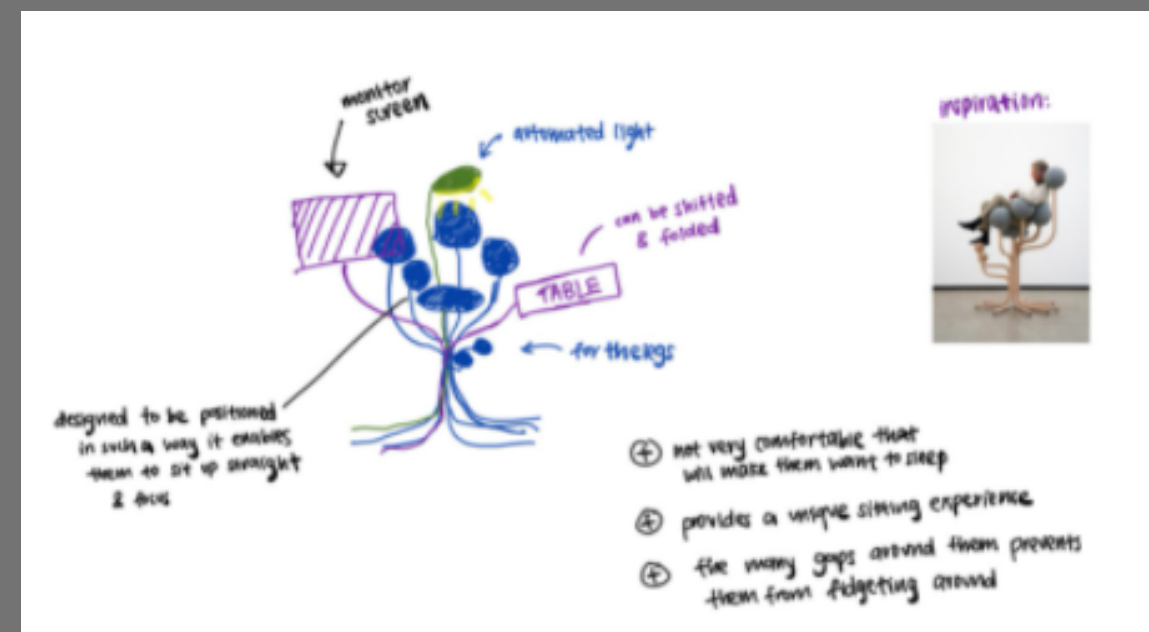
Design 2: Productive Dome



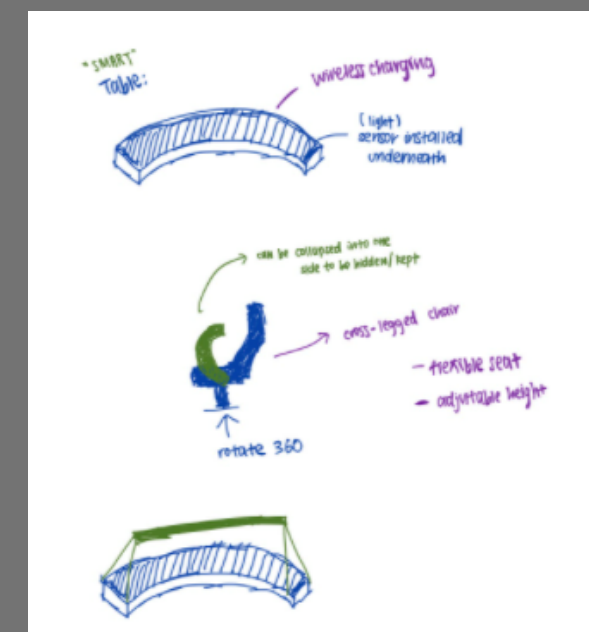
Design 3: Batik Dome



Design 4: Cushion Ball Chair



Design 5: Integrated Table Concept



Design Process – Pugh Chart

| Selection Criterion | Concept Variants | | | | | |
|---------------------------------|--------------------|-----------------|------------|--------------------|--------------------------|------|
| | Smart Office Chair | Productive Dome | Batik Dome | Cushion Ball Chair | Integrated Table Concept | Ref. |
| Ease of Use | 7 | 3 | 5 | 3 | 7 | 0 |
| Easy to Organize | 4 | 2 | 2 | 3 | 6 | 0 |
| Multi-functional | 7 | 6 | 1 | 0 | 1 | 0 |
| Ambience | 2 | 4 | 7 | 4 | 2 | 0 |
| User Customization | 4 | 5 | 1 | 2 | 3 | 0 |
| Comfort | 3 | 7 | 5 | 4 | 4 | 0 |
| Durability | 3 | 4 | 4 | 2 | 4 | 0 |
| Productive/Learning Enhancement | 3 | 6 | 5 | 6 | 6 | 0 |
| Workspace Area | -2 | 3 | 1 | 0 | 4 | 0 |
| NET | 31 | 40 | 31 | 24 | 37 | |
| RANK | 3 | 1 | 3 | 5 | 2 | |

Solution

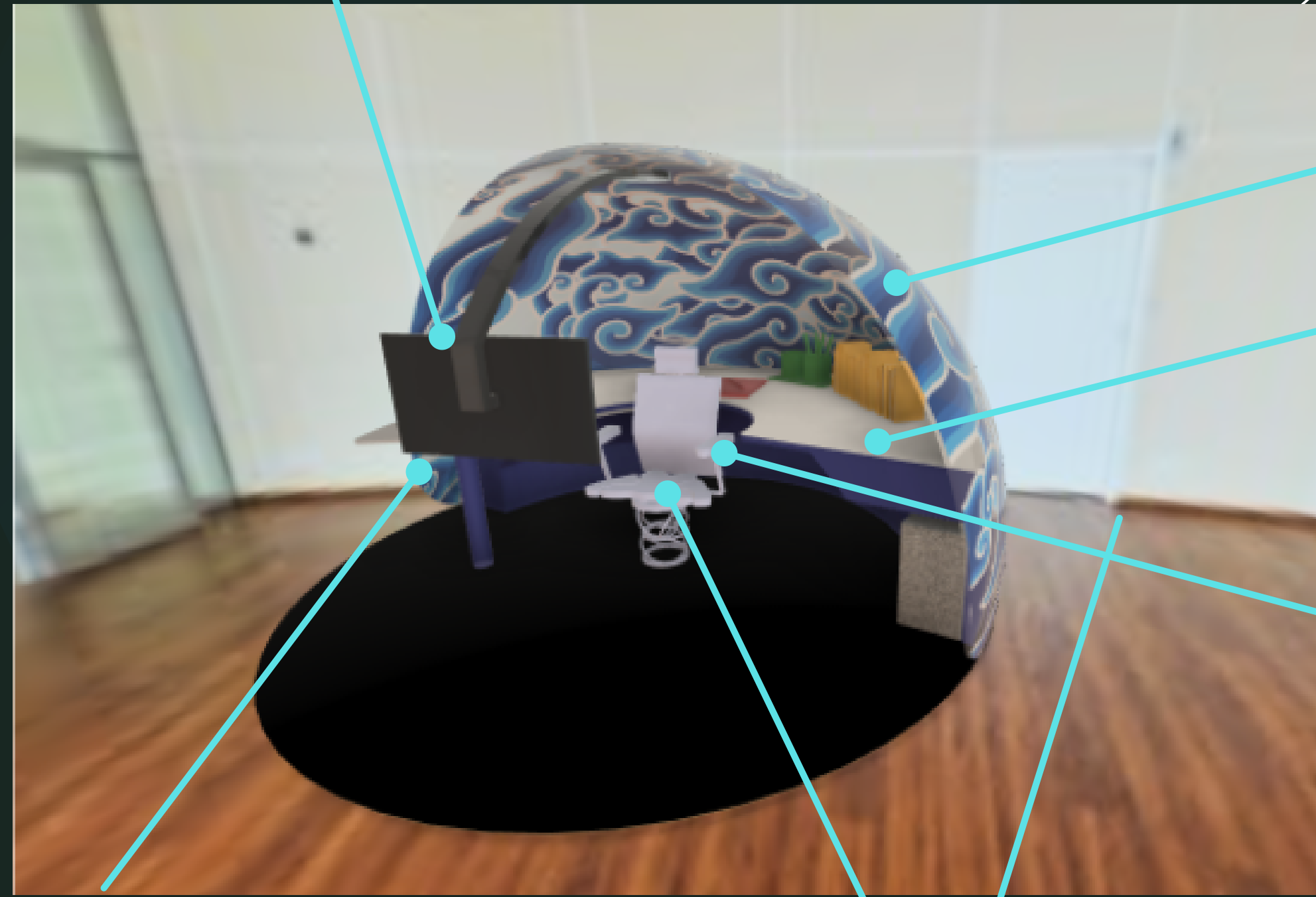
Normal Mode



Extendable Table (extra 90 degrees)

Rotating Monitor

Ergonomic Rotating Chair



Retractable
Dome

Wireless Charging
Table

All-in-one control
panel on the arm
rest

Patented Seat Design for Cross Legged Support

Solution

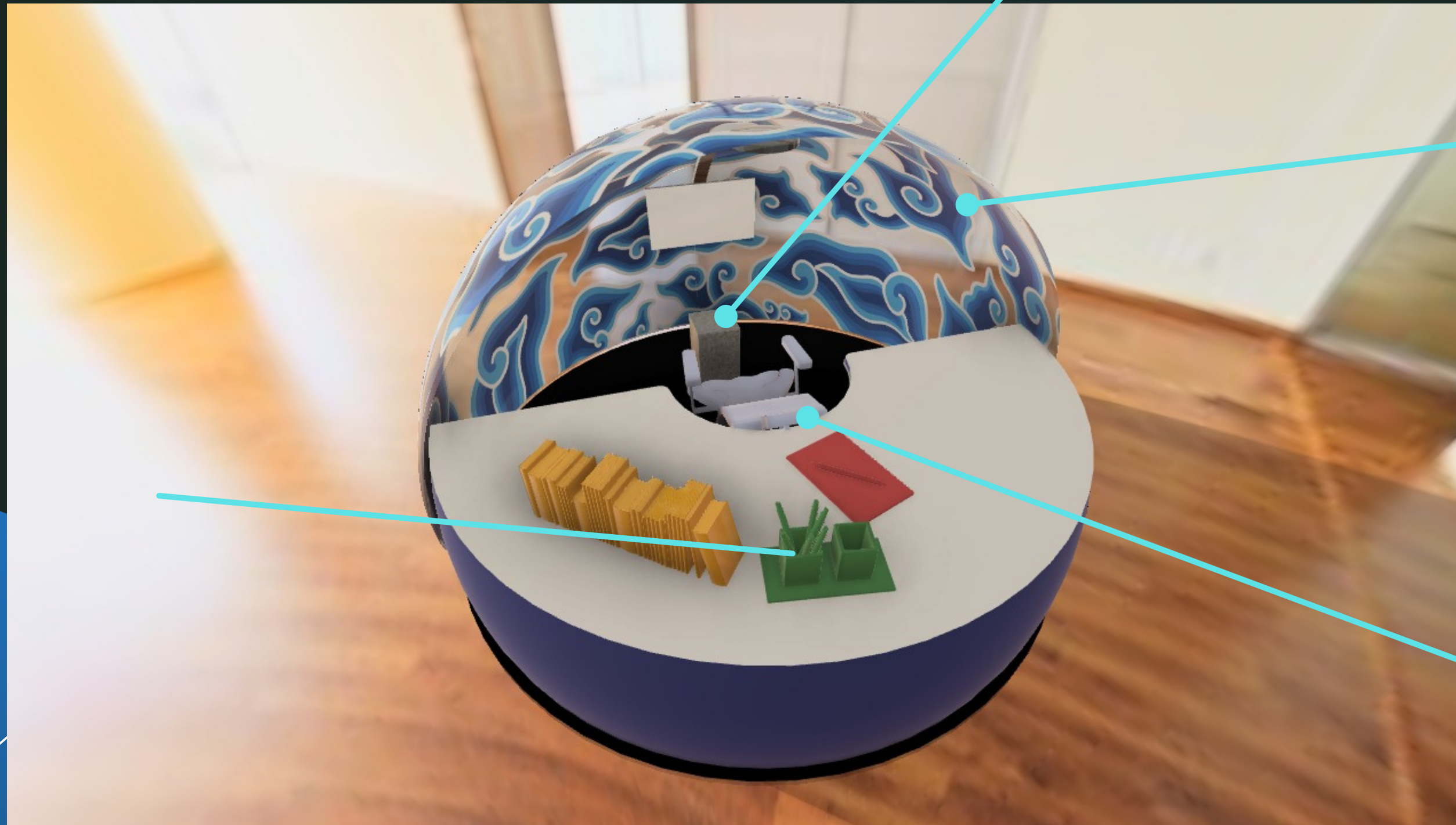
Cinema Mode

The dustbin also
function as a leg rest

Dome can be retracted all
the way to provide a cozy
private theatre setting

Food can be placed on
the extended table for
easy access

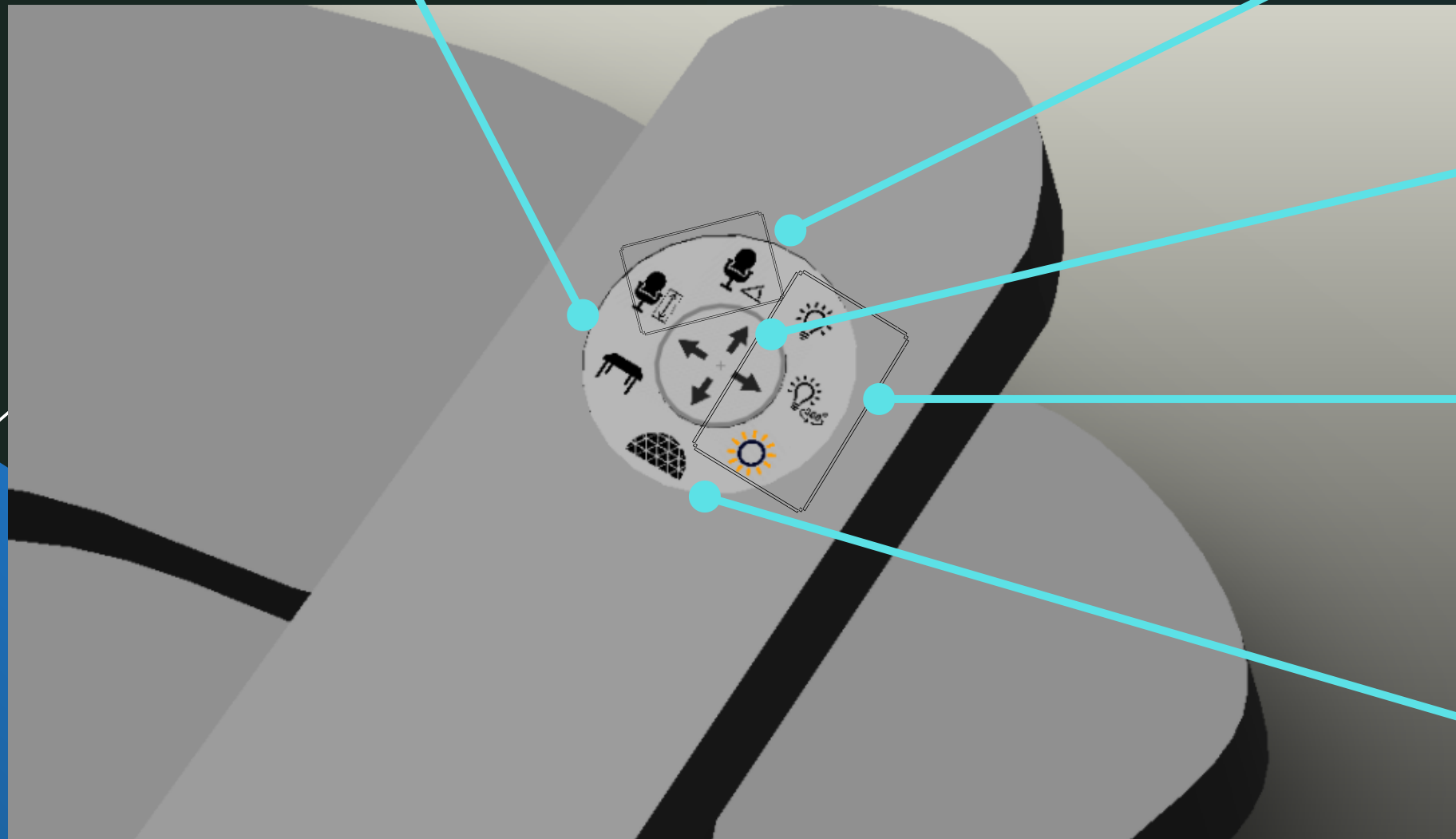
Reclinable Backrest
up to 40 degrees



Solution

Control Panel on The Arm Rest of The Chair

Panel to extend the table



Panels to adjust seat's height, inclination and distance from table

Touchscreen-direction-button to adjust every function

Panels to adjust light's intensity, brightness and position

Panel to adjust the retractable dome

Impact

Convenient

- Ergonomic chair
 - Can be reclined up to 40 degrees
 - Patented seat design for cross-legged sitting
- Privacy and concentration
 - Dome can be enclosed for better privacy
 - Reinforced sound-proof dome structure provides a quiet work environment
- Rotatable Monitor Arm
 - Allows for 360 degrees of movement around the dome
- Wireless Charging Table
 - Fuss-free charging of electronic devices

Multi-functional

- Big working space
 - 180 degrees table
 - Extendable table
- Cinema/entertainment mode
 - For user to relax after a productive work session
 - Dust Bin can function as a leg rest

Contribution to Society

- Scale up Rattan Economy
 - Use of rattan as the primary material of the dome

User Friendly

- Simple control pane
 - All-in-one control panel on the armrest to conveniently adjust all the features in the dome



Thank you.

Best Regards,
Eunice Kwok, Tan Zen Sheen, Fernando Hiero, Bernike Age.