

European Project Semester 2026

April 16th, 2026

Healing Cocoon

TURNING FEAR INTO SENSE OF WONDER



Presented by
Team 6



Problem Statement

Market pain: The anxiety children experience in medical waiting rooms creates a negative association with healthcare. This early distress often leads to a lifelong reluctance to consult medical specialists.

Market need: We must transform waiting rooms into welcoming and reassuring environments. Improving this pre-appointment experience is essential to effectively reduce a child's stress and anxiety.

Market opportunity: develop an innovative, multisensory technology to help children relax. By combining soothing scents, calming sounds, and interactive visuals, we can turn the waiting period into a positive experience.





Project Management

Project schedule organization (Gantt Chart):

Initiation phase

Development phase

Deliverables

-
Wiki

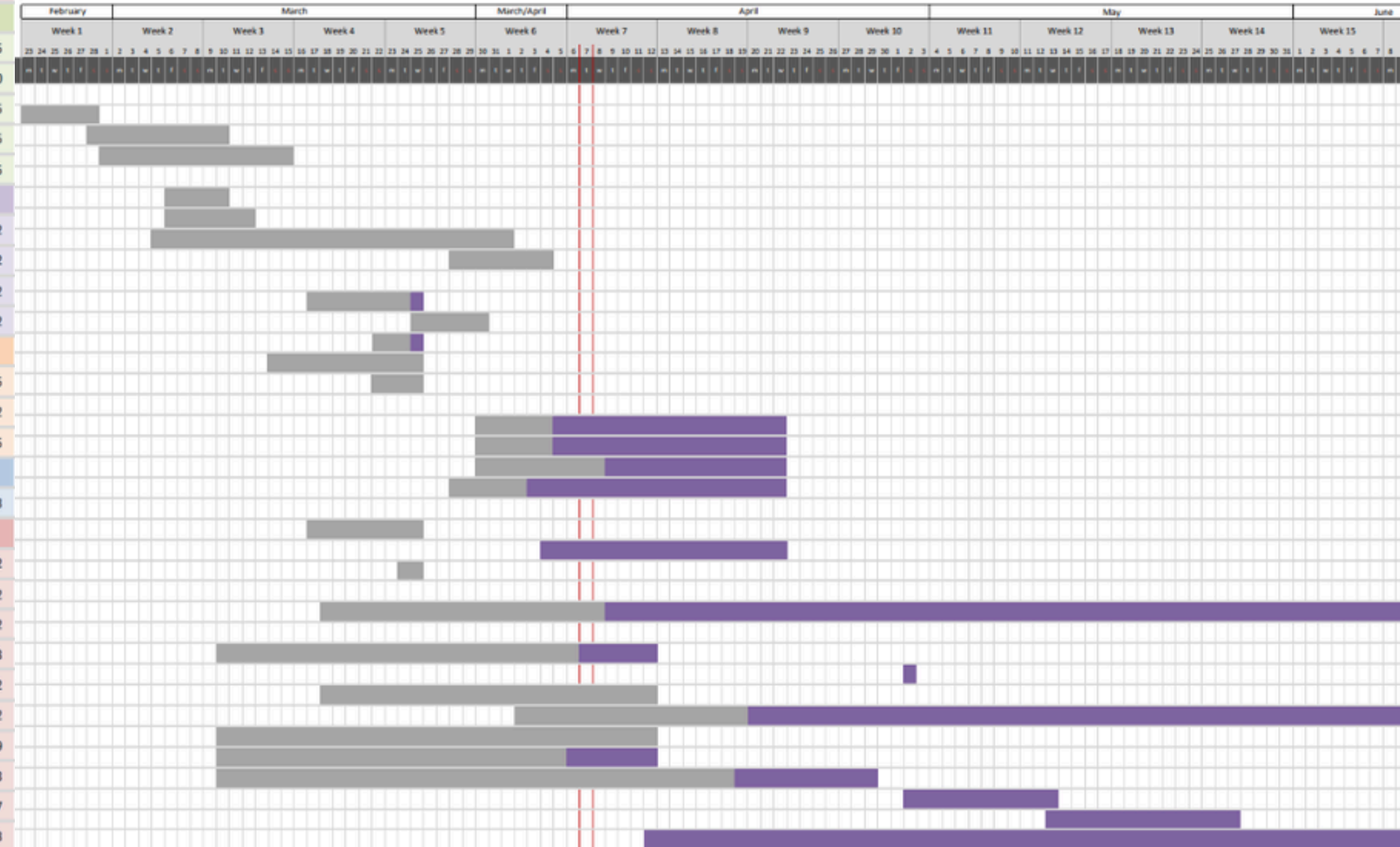
TASKS	ASSIGNED TO	PROGRESS	START	DUE DATE
Global activities/starting of the project				
Looking for needs/problems in healthcare/wellbeing	All	100%	2026-02-23	2026-02-28
Brainstorming on solutions and make the decision	All	100%	2026-02-28	2026-03-10
Background and related work/Bibliography/State of the Art (Interim report)	All	100%	2026-03-01	2026-03-15
Marketing (interim report)				
Market analysis	Anouc	100%	2026-03-06	2026-03-10
Business Idea formulation	All	100%	2026-03-06	2026-03-12
Business Model	Ronja, Hanna	100%	2026-03-05	2026-04-01
SWOT analysis	Ronja, Hanna	100%	2026-03-28	2026-04-04
Cocoon system design				
Choose the colors	All	95%	2026-03-17	2026-03-25
Analyze and select hygienic/acoustic interior materials	Julie	100%	2026-03-25	2026-03-30
Redesign Cocoon layout for wheelchair accessibility	Ronja	95%	2026-03-22	2026-03-25
Draft Detailed System Schematics & Structural Drawings	Daniel	100%	2026-03-14	2026-03-25
Finalize the ergonomic dimensions	Hanna	100%	2026-03-22	2026-03-25
App Design				
Add a database	Daniel, Kemal	25%	2026-03-30	2026-04-22
Design UI mockups (including voice-to-text?) (add an interface)	Daniel, Kemal	25%	2026-03-30	2026-04-22
Projector output integration	Daniel, Kemal	45%	2026-03-30	2026-04-22
Backend App - develop local controller logic to bridge UI inputs to projector/scent actuators	Daniel, Kemal	25%	2026-03-28	2026-04-22
Prototype development				
3D design model	Anouc	100%	2026-03-17	2026-03-25
3D model video	Kemal	0%	2026-04-04	2026-04-22
Build cardboard scale model	Julie	100%	2026-03-24	2026-03-25
Communications/Advertismnt				
Communication tools	Ronja	25%	2026-03-18	2026-06-13
Wiki/Deliverables				
Interim report and presentation	All	85%	2026-03-10	2026-04-12
Upload refined Interim Report	All	0%	2026-05-02	2026-05-02
Flyer	Anouc	100%	2026-03-18	2026-04-12
Leaflet	Anouc	25%	2026-04-02	2026-06-13
Eco-efficiency and Measures for Sustainability (interim report)	Julie	100%	2026-03-10	2026-04-12
Ethical and Deontological Concerns (interim report)	Julie	80%	2026-03-10	2026-04-12
List of Materials (/!\ local providers, price..)	Daniel, Julie	80%	2026-03-10	2026-04-29
Packaging solution	Julie	0%	2026-05-02	2026-05-13
Functional tests results	Ronja, Daniel, Kemal	0%	2026-05-13	2026-05-27
Final report, presentation, paper, poster and manual	All	0%	2026-04-12	2026-06-13

Prioritization based on:

- deadlines
- deliverables
- estimated workload

Underlying challenges:

- find compromise based on each person's area of expertise and time taken for a task





State of Art



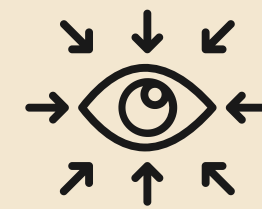
SOUND

Music therapy has been found to alleviate pain, reduce anxiety, and enhance overall well-being during treatment procedures.



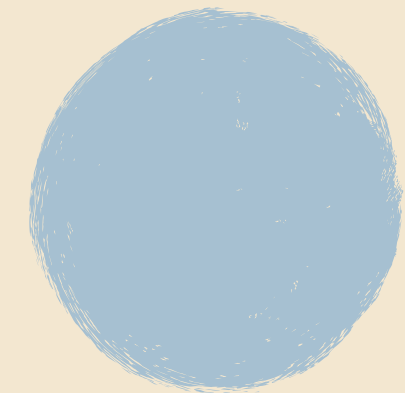
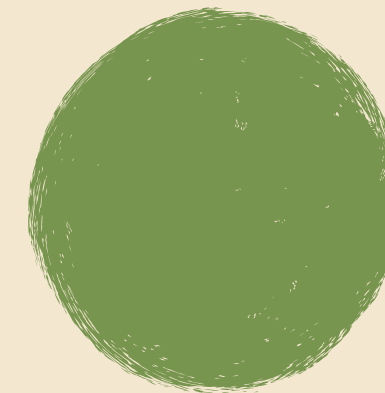
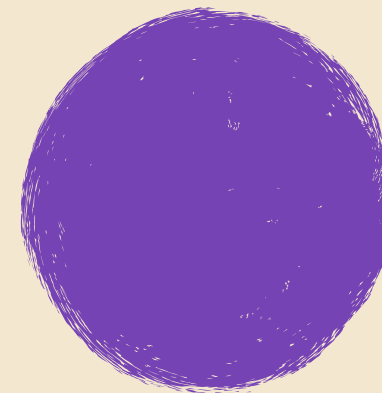
SCENT

The use of aromatherapy with lavender scent before treatment can effectively reduce anxiety and pain in children before a treatment.



VISUALS

Colors: Blue/ Green/ Purple



Marketing

MARKETING MIX (THE 4PS)

- **Product:** interactive relaxation pod with 180° visuals, audio, and scent.
- **Price:** Hardware (2000-2500€) + monthly subscription (9.99-19.99€).
- **Place:** B2B sales via healthcare partners and interior designers.
- **Promotion:** Medical trade shows, LinkedIn targeting, and pilot testimonials

UNIQUE SELLING PROPOSITION

The Healing Cocoon is the only fully wheelchair-accessible, multisensory waiting room environment that actively transforms pre-treatment anxiety into a calming experience

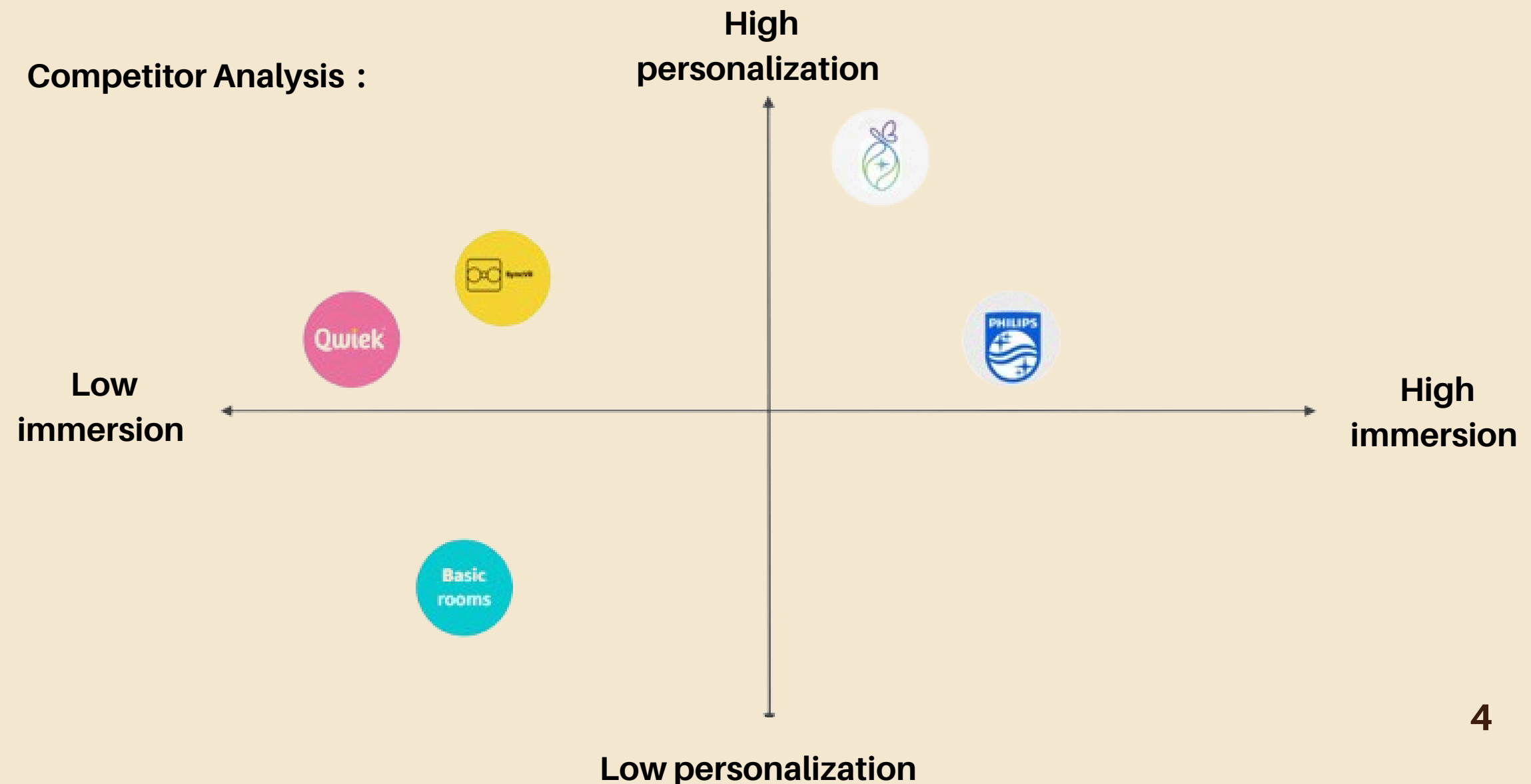
TARGET AUDIENCE (B2B FOCUS)

Private pediatric dental, psychology, and OT clinics looking to provide a premium experience while reducing stress-led delays.

MARKET POSITIONING

Positioning as high-quality, medical waiting room furnishings that meet strict hygiene and safety standards and clearly differentiate themselves from conventional distractions such as TVs or tablets

Competitor Analysis :





SWOT Analysis

Strengths

- inclusive and wheelchair accessible
- Superior hygiene and easier to sanitize than VR headsets
- Fully immersive, multisensory anxiety reduction

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Weaknesses

- Large physical footprint required
- High initial capital cost for clinics
- Requires ongoing tech maintenance and staff training

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Threats

- Cheaper digital distraction alternatives (tablets, smartphones)
- Potential patient allergies or extreme sensory sensitivities
- Private clinic budget freezes during economic downturns

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Opportunities

- Increased parental expectations for reassuring environments
- Surging demand for neurodivergent-friendly healthcare spaces

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Sustainability and Materials

FOCUS ON MATERIALS

- Work with Portuguese suppliers (materials and components)
- Use of materials that are durable and recyclable over time (Aluminium, Brass)
- Use of the same suppliers whenever possible



SUSTAINABILITY

Sevral aspects:

- Environmental (materials, transportation)
- Economical
- Social (accessibility)
- Life Cycle Analysis (LCA)

Supports the cocoon design through efficient material and energy choices

Ethics



SAFE & NON-INVASIVE DESIGN

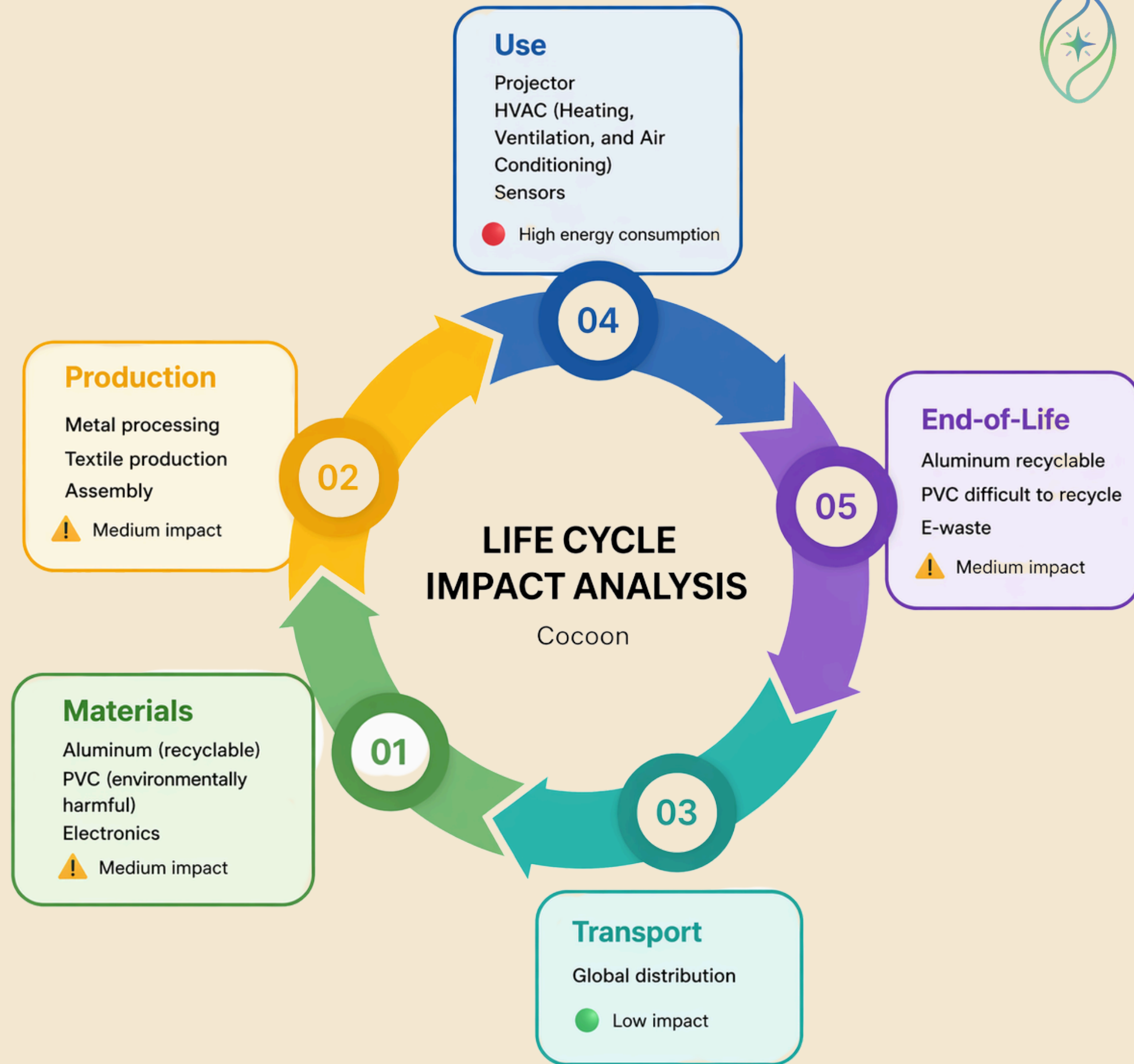
Designed to reduce stress without interfering with medical treatment.

HONEST COMMUNICATION

Positioned as a supportive tool, not a medical solution.

SUSTAINABLE CHOICES

Focus on energy efficiency and durable materials (based on LCA).



Structural system



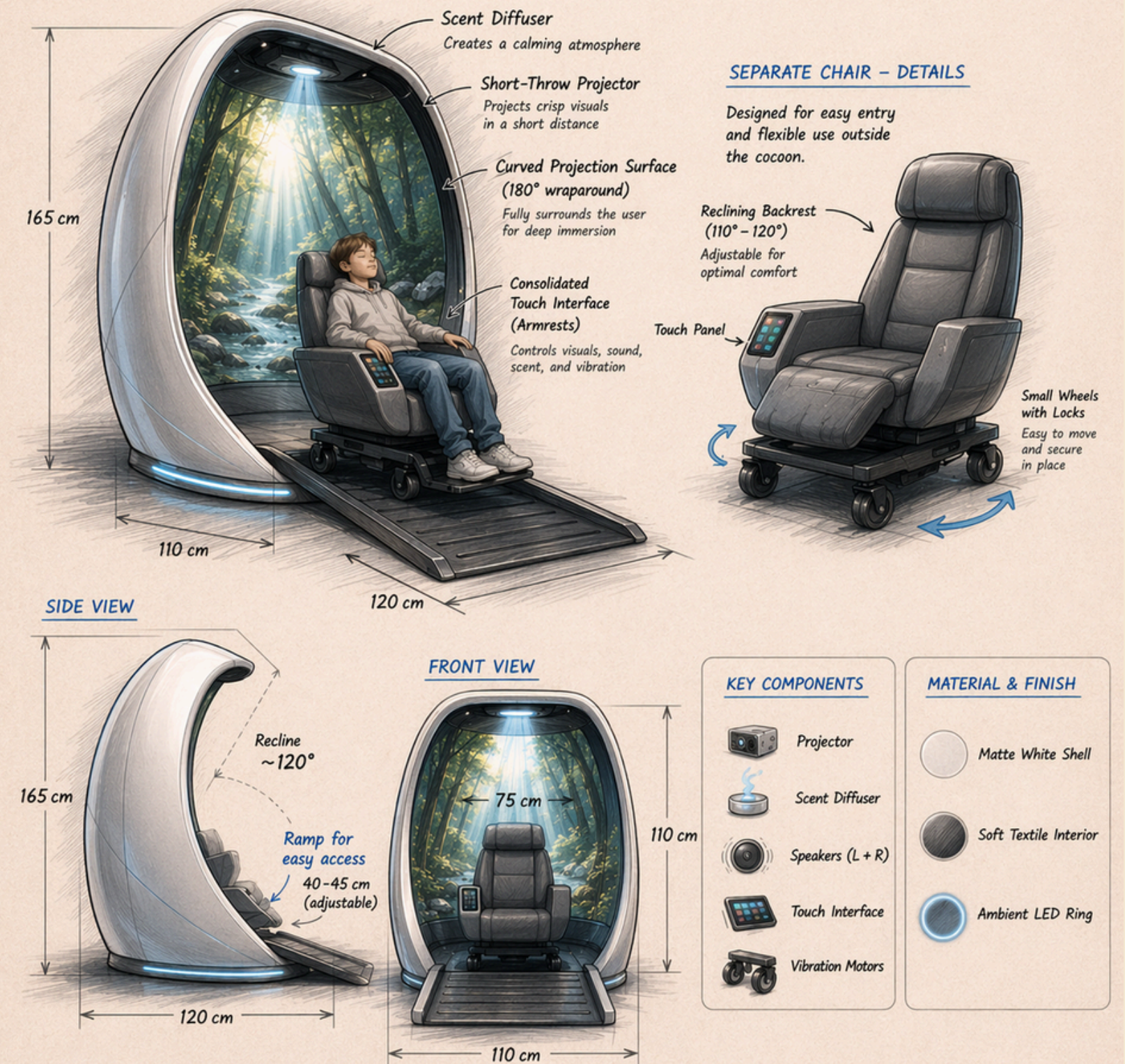
HealingSpaces Cocoon Chair - Concept Idea

IMMERSIVE 180° PROJECTION • ROTATING CHAIR • SCENT + AUDIO + VIBRATION



HealingSpaces Cocoon Chair - Finalized Design

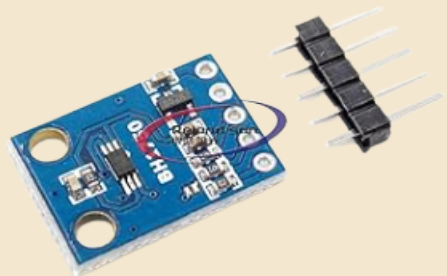
IMMERSIVE 180° PROJECTION • REMOVABLE CHAIR • RAMP ACCESS • SCENT + AUDIO + VIBRATION



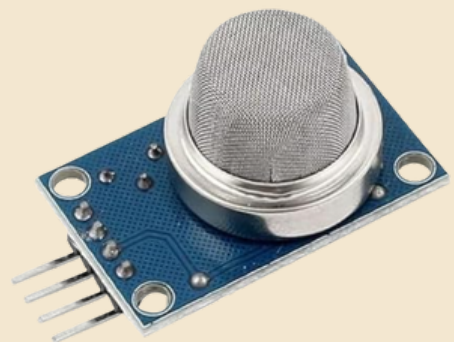
Smart system



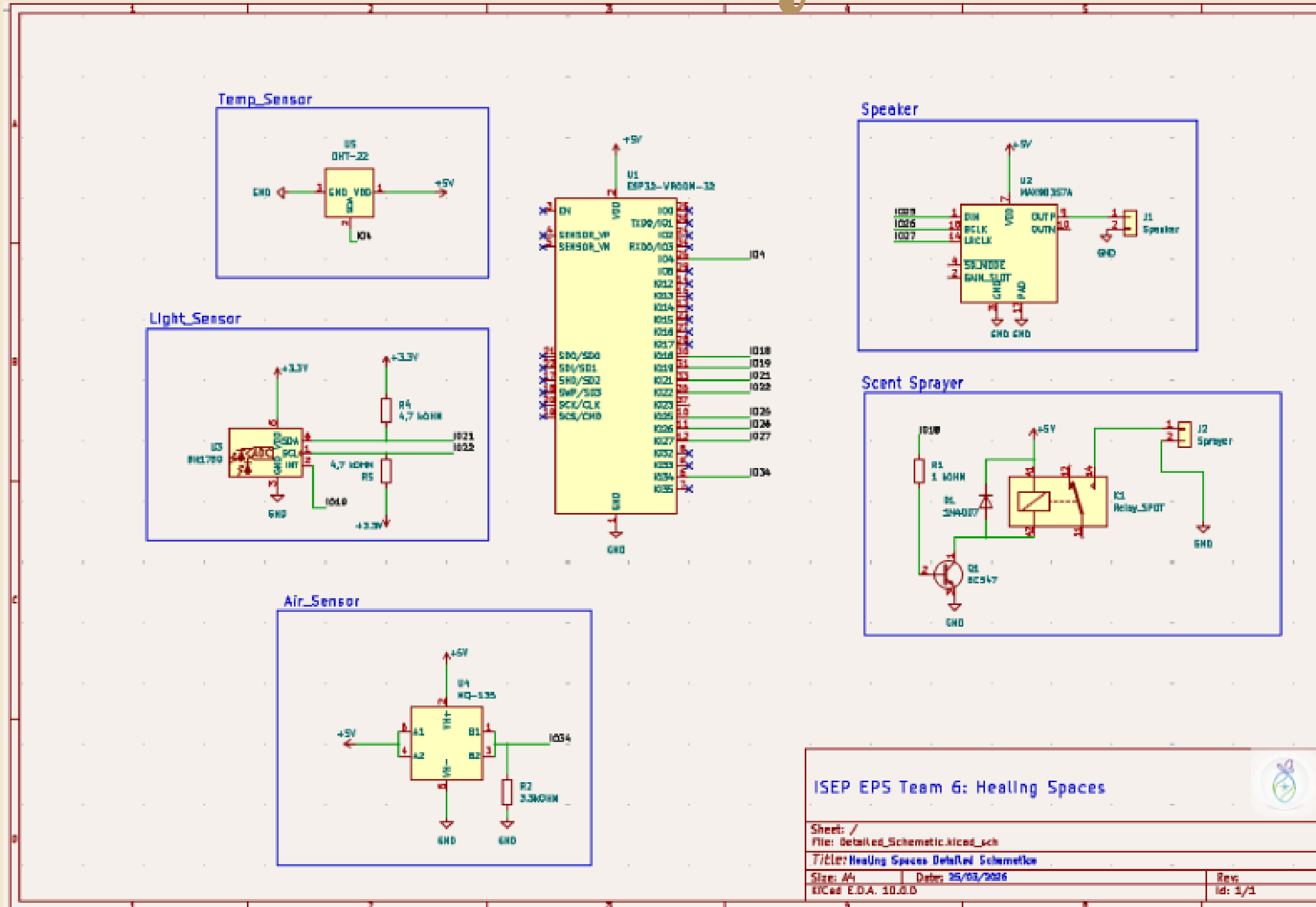
Air Humidity and Temp Sensor



Light Sensor



CO2 sensor



ESP32 DevKit V1



Scent Sprayer



Speaker + Amplifier

Conclusion



The Healing Cocoon is a semi-enclosed calming pod designed **for children with anxiety and fear of medical appointments.**

Children enter a small immersive environment where the outside waiting room disappears.

Goal: reduce anxiety before medical appointments and **leave a good memory** for future consultations

The Healing Cocoon



