Università degli Studi di Napoli
Federico II

DiARC

DBE
INTERNATIONAL MASTER OF SCIENCE
DESIGN FOR THE BUILT ENVIRONMENT

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ATELIER OF INTERACTION DESIGN

Collaborative environment

AA_2023/2024

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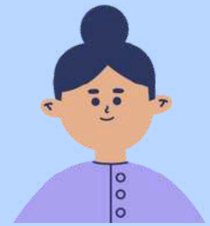
FINAL PRESENTATION - SEPTEMBER 6TH 2024

Introduction

This project is designed to enhance academic and educational environments for its diverse community and meet the needs of students, faculty, and staff. The goal is to foster an environment that supports various learning activities, promotes collaboration, and accommodates individual preferences and requirements. By using modular design and smart technologies, the space addresses diverse educational needs and provides an improved user experience.

USER PERSONAS

				
Name	**Sarah**	**David**	**Maria**	**John**
Occupation	Marketing Professional	IT Manager	Environmental Science Student	Retired Teacher
Age	30 years old	25 years old	23 years old	55 years old
Location and Language	Milan ITALIAN	London ENGLISH	Paris FRENCH	New York ENGLISH
Interests	staying active, exploring new restaurants, and traveling	passionate about technology, enjoys outdoor activities like hiking, and values work-life balance.	passionate about sustainability, and interested in cooking and DIY projects	gardening, reading historical fiction, and volunteering in his community

DESIGN CRITERIA

Material and Structural Integrity

- Material Choice
- Structural Integrity
- Durability

User-Centered Aesthetic Design

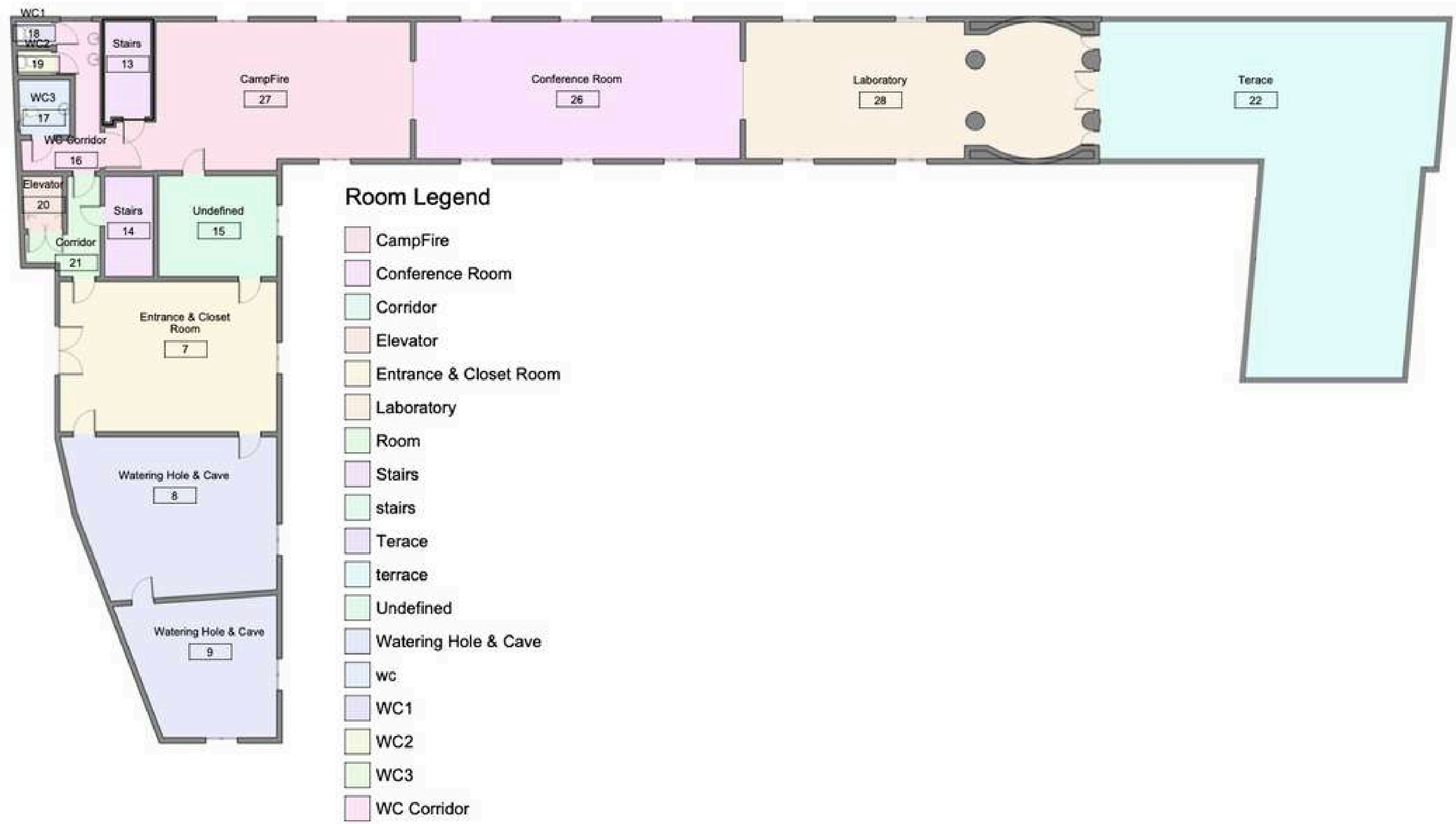
- User-Centered Design
- Aesthetic
- Functional Design

Modular and Flexible Design

- Modularity
- Dimensions
- Standardization
- Flexibility
- Adaptability

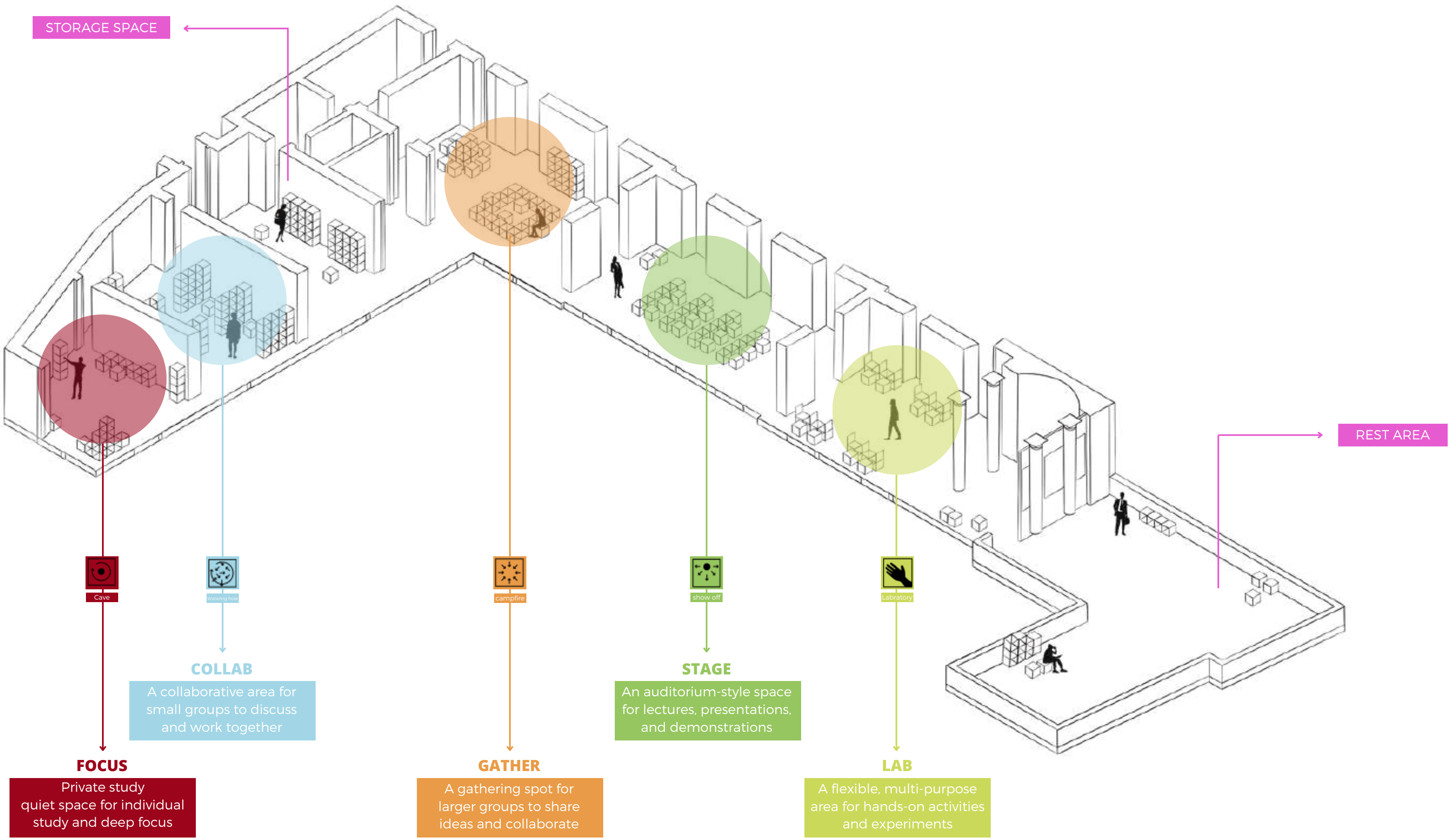
Material and Structural Integrity	• Material Choice • Structural Integrity • Durability	• Sustainability: Using ABS and recycled ABS reduces waste and promotes eco-friendly practices. • Stability: The design ensures that assembled structures are stable and safe to use. • Material Strength: ABS is durable and impact-resistant, suitable for frequent use in educational settings.
User-Centered Aesthetic Design	• User-Centered Design • Aesthetic • Functional Design	• Clean Design: Uniform panels create a visually appealing, clean, and modern aesthetic ideal for educational spaces. • Functionality: The design balances aesthetics with functionality, making the space both visually attractive and practical for educational purposes. • Ease of Use: The assembly process is straightforward, allowing users to reconfigure the space without the need for specialized tools or skills.
Modular and Flexible Design	• Modularity • Dimensions • Standardization • Flexibility • Adaptability	• Versatility: Panels create various objects, enabling multi-functional space design. • Interconnectivity: Panels easily connect and disconnect for quick assembly. • Reconfigurability: Space can be reconfigured to meet diverse educational needs. • Customizability: Users can tailor panel arrangements to specific requirements. • Standardized Dimensions: Uniform panel sizes (45 x 45 x 2 cm) ensure consistent and efficient assembly.

PLAN

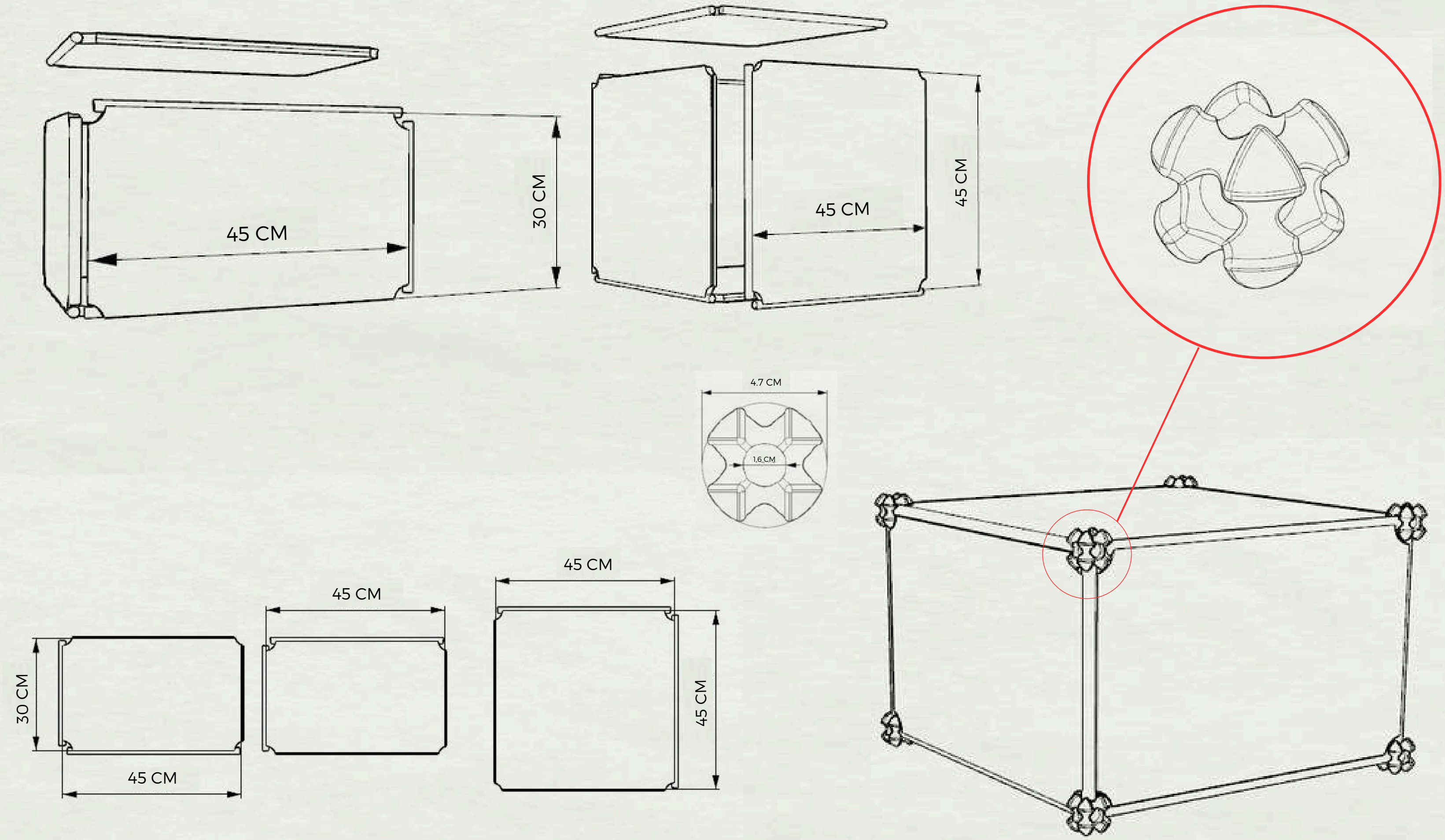


WC1
18
WC2
19
Stairs
13
CampFire
27
Conference Room
26
Laboratory
28
Terace
22
WC3
17
WC Corridor
16
Elevator
20
Stairs
14
Undefined
15
Corridor
21
Entrance & Closet Room
7
Watering Hole & Cave
8
Watering Hole & Cave
9
Room Legend
CampFire
Conference Room
Corridor
Elevator
Entrance & Closet Room
Laboratory
Room
Stairs
stairs
Terace
terrace
Undefined
Watering Hole & Cave
wc
WC1
WC2
WC3
WC Corridor

LEARNING SPACES



TECHNICAL DRAWING



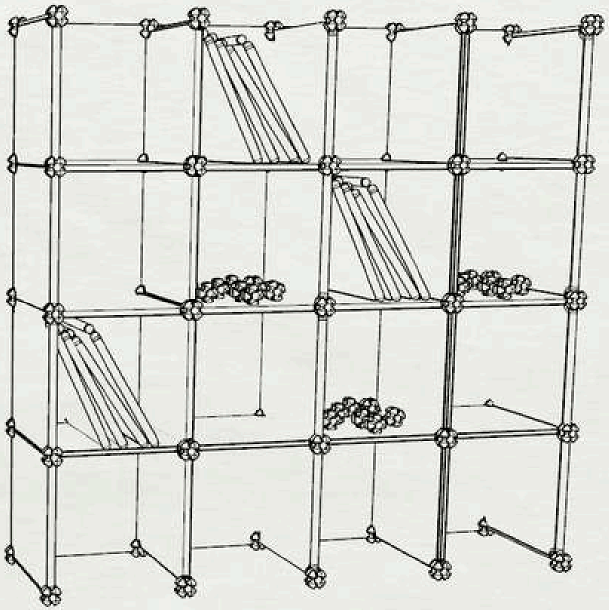
TRANSFER & STORAGE

TRANSFER

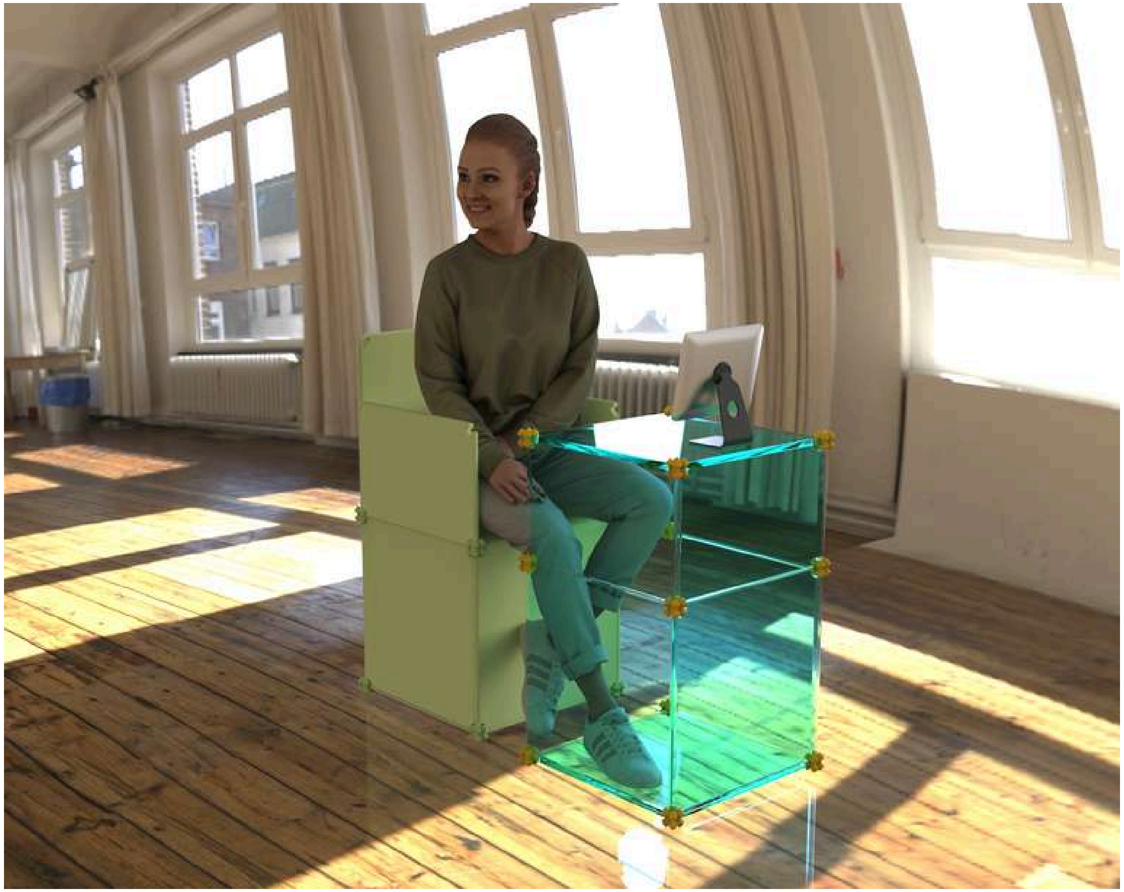
All students and teachers can carry the boxes easily

STORAGE

and finally, with these panels and joints, we can create a storage space to store the components inside.

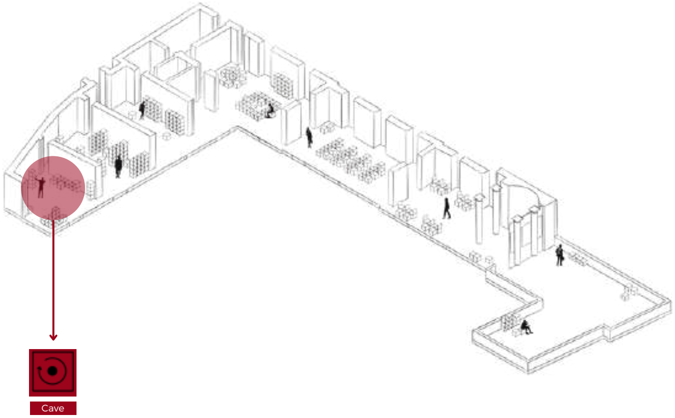


CAVE



FOCUS

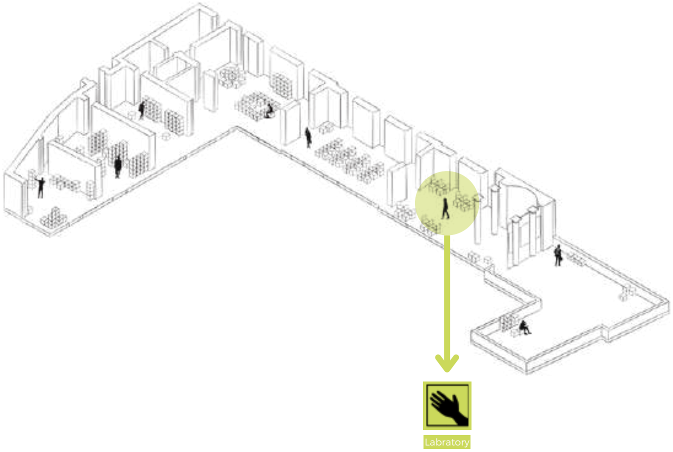
Private study
quiet space for individual study
and deep focus



LABRATORY

LAB

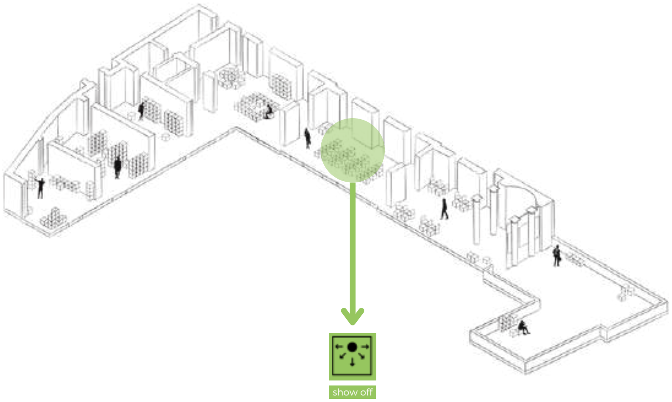
A flexible, multi-purpose area for hands-on activities and experiments



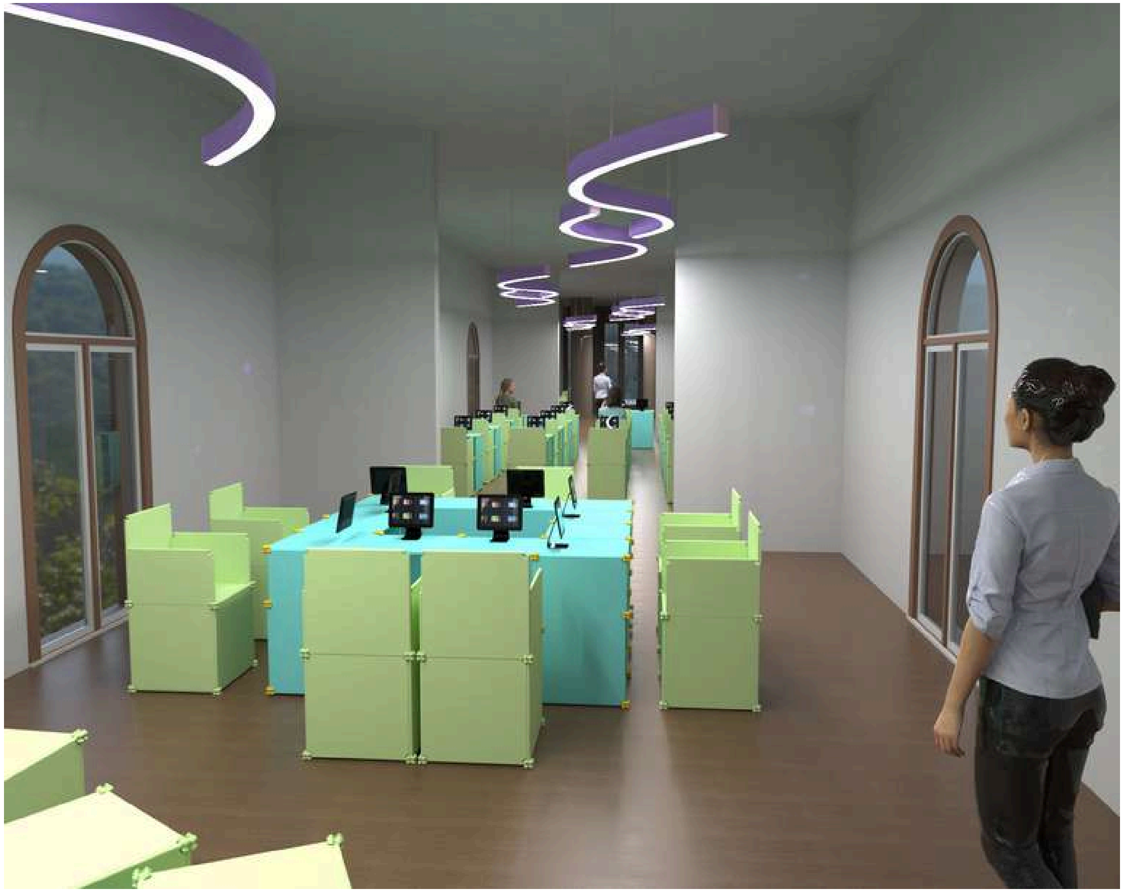
SHOW-OFF

STAGE

An auditorium-style space for lectures, presentations, and demonstrations

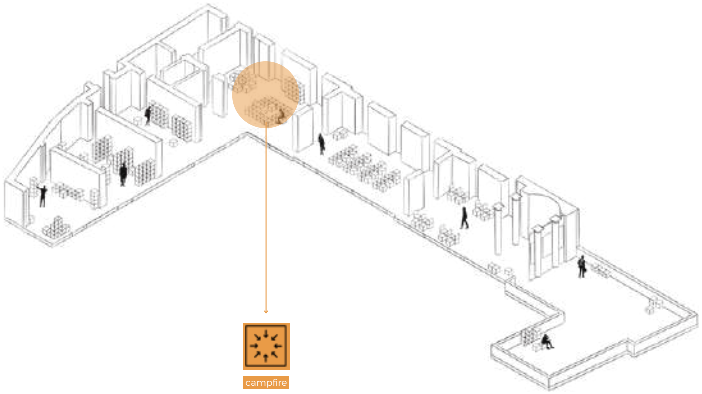


CAMPFIRE



GATHER

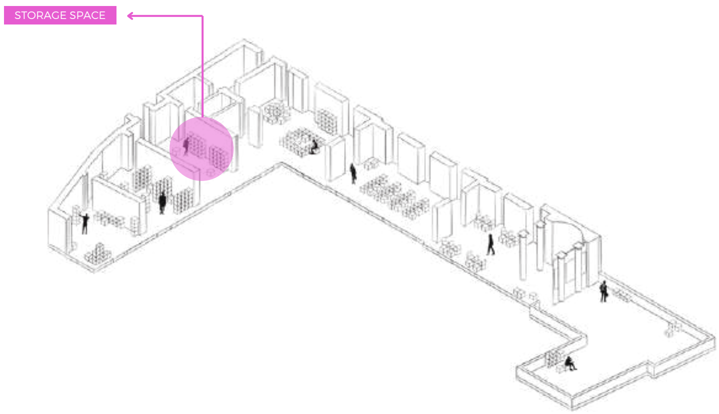
A gathering spot for larger groups to share ideas and collaborate



STORAGE SPACE

STORAGE

An organized area with shelves for storing panels and joints



MOBILE APP FEATURES AND PROTOTYPE

Functions offered by the mobile app for users emphasize key features like real-time data monitoring, alerts, and control options.

Click here

FIGMA prototype

LOGO DESIGN
& COLOR PALETTE

Babel

Babel

#DEA22F

#FDEB9B

#000000

#FFFFFF

INNOVATIVE REAL-TIME TRANSLATION APP

Designed for seamless communication and collaboration in diverse learning environments.

Designed for seamless communication and collaboration in diverse learning environments.

Designed for seamless communication and collaboration in diverse learning environments.

KEY FEATURES

- Interpreter:

- User-friendly tool for real-time translation.
- Supports a wide range of languages.
- Powered by Microsoft Translator servers.

- Group Discussion:

- Host virtual discussions with multi-user support.
- Includes chat, audio, and video conferencing capabilities.
- Seamlessly integrates with interpreter tool.

- Presentation:

- Revolutionizes presentations with real-time translation.
- Integration as an add-in for Microsoft PowerPoint.
- Supports live Q&A sessions with translation.

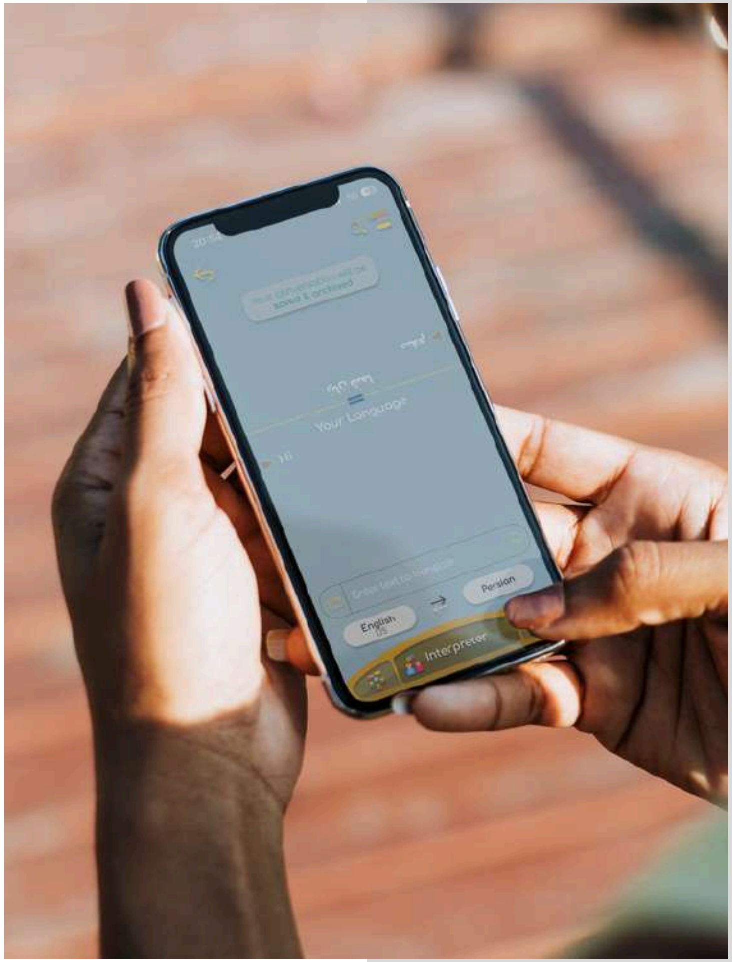
ADDITIONAL FEATURES AND CONCLUSION

- **Additional Features**

- User Profiles: Personalized settings for tailored experience.
- Secure Communication: Built-in encryption for confidentiality.
- Feedback Mechanism: Continuous improvement based on user input.

- **Conclusion**

- Groundbreaking solution for overcoming language barriers.
- Empowers learners and educators to connect and succeed globally.
- User-centric design for seamless communication and collaboration.



PLACEMENT OF IOT DEVICES

LIST OF EQUIPMENTS

Samsung TV Crystal UHD (UE75CU7190uxzt)

Positioned behind the tutor desk, this high-resolution display serves as a central visual aid for presentations, subtitles, and translated content.

iPad 9th Gen (31 units)

Each student and the tutor will be provided with an iPad to access the Microsoft Translator app and PowerPoint presentations.

Jabra Pro 930 UC Mono Headset (31 units)

These headsets ensure clear and concise audio transmission, enabling seamless communication and reception of translated content.

Ethernet Hub Zyxel GS1900

This hub facilitates the connection of iPads to the internet, ensuring reliable network access for all users.

Multi Plug Emuca (31 units)

A retractable multi-socket block installed in the desk, equipped with EU plug type F, USB, RJ45, and HDMI ports, enables convenient power and data distribution.

Systimax CAT6 Ethernet Cable (100 meters)

High-speed Ethernet connectivity is essential for uninterrupted internet access and smooth operation of online resources.

Cordial CLS 215 Electric Cable (100 meters)

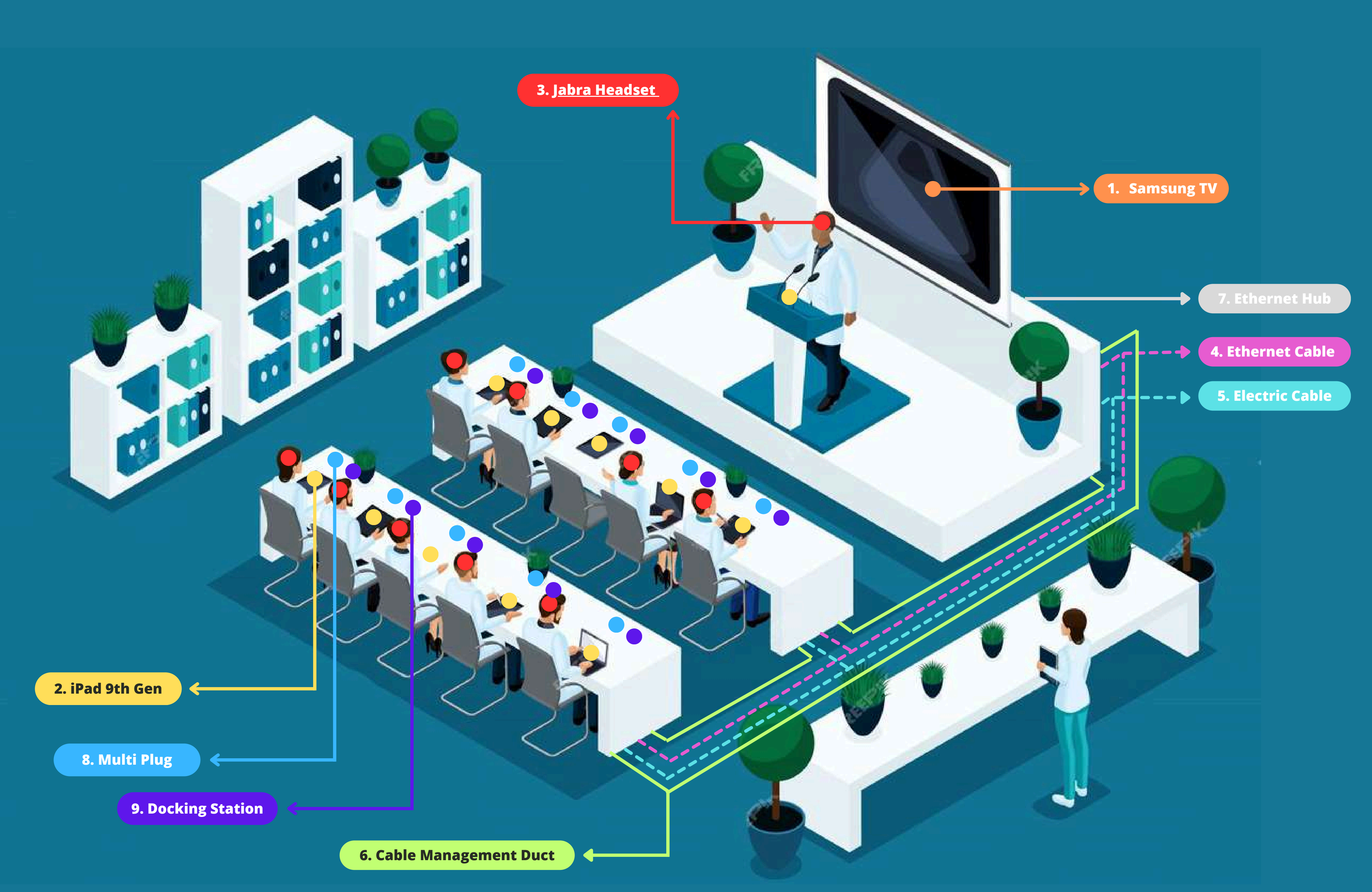
Electric cables provide power supply to all devices, ensuring continuous operation throughout the learning session.

Betaduct PVC Cable Management Duct (100 meters)

Cable management ducts maintain a tidy and organized workspace while protecting cables from damage.

Lightning to RJ45 Ethernet Docking Station (31 units)

These docking stations enable iPads to connect to both Ethernet and charging cables, ensuring seamless integration with the classroom setup.


3. Jabra Headset
1. Samsung TV
7. Ethernet Hub
4. Ethernet Cable
5. Electric Cable
2. iPad 9th Gen
8. Multi Plug
9. Docking Station
6. Cable Management Duct

THANK YOU :)