

# LAPUTA

The 12th Virtual Design World Cup

## INTRODUCTION

LAPUTA is a smart transportation integration system based on the concept of the Metaverse. It integrates information processing, natural resources and renewable energy into a sustainable and decentralized transportation network. In response to future foot traffic at the Western Sydney Airport, the vehicle unit "Chubby" can be used as an outdoor mass transit vehicle via assembly unit, or as a small autonomous vehicle indoors.

LAPUTA's ultimate goal is to create an intelligent mobile city which is safe, smooth, seamless, shared, and environmentally sustainable.



## CONCEPT

LAPUTA is a traffic network of 3D virtual world focused on social connectivity, which is constructed of the concept of Metaverse, mainly creating a persistent and decentralized online three-dimensional virtual environment. It provides a world of virtual reality links, people around the world could go wherever they want via virtual reality anytime anywhere.

The trip will integrate traffic and facility information for optimal planning. In other words, it provides passengers with a lively commute and flexible interactions in the post-pandemic era.

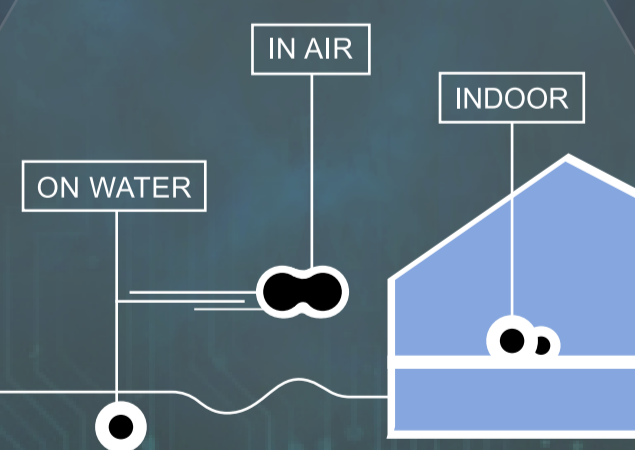
## TRANSPORTATION VEHICLE UNIT "CHUBBY"

Chubby can be used indoors and outdoors, as well as in the air, land and sea. They can navigate passengers to their destinations automatically. Through Metaverse and XR technology, Chubby can be used as a virtual field, getting rid of limitation of time and space. Chubby travels through the airport and transfer stations via the skywalk. Since the transfer stations are located throughout the whole aerotropolis, Chubby can efficiently analyze and direct to the best escape route through real-time data.



## URBAN STEPPING STONES

The ecological island plays the role of regulating the environment. It can enhance the efficiency of carbon dioxide conversion, regularly water nearby plants and regulate the surrounding temperature. Also, it provides places for wildlife to inhabit and maintain biodiversity.



## XR VIRTUAL MEETING

No matter where you are, you can enter the meeting immediately. Everyone who joined the virtual meeting can look around to see their colleagues, you can whisper to the people next to you as in the real world. Even some micro-expressions and specific facial features can be seen through XR technology.



## ECOLOGICAL XR INTERACTION

XR technology simulates the tactile feeling of animals, travelers can experience the interaction with animals at close range vividly. It reduces ecological damage effectively without practically touching the wild animals.



## ENERGY TRANSFER STATION

Chubby are powered by renewable energy. The transfer stations can collect rainwater and generate electricity from hydropower. Also, the solar panels on top of the station can convert sunlight into electricity, it changes angles and directions following the movement of sun.

## TRANSFER STATION

The transfer stations are spreaded out from the center of the airport and evenly distributed around Western Sydney aerotropolis. Chubby enters the transfer stations in a circular path through the central vertical tube to recharge, then move upwards waiting for passengers to catch a ride. They will navigate to your destination by means of skywalks.

