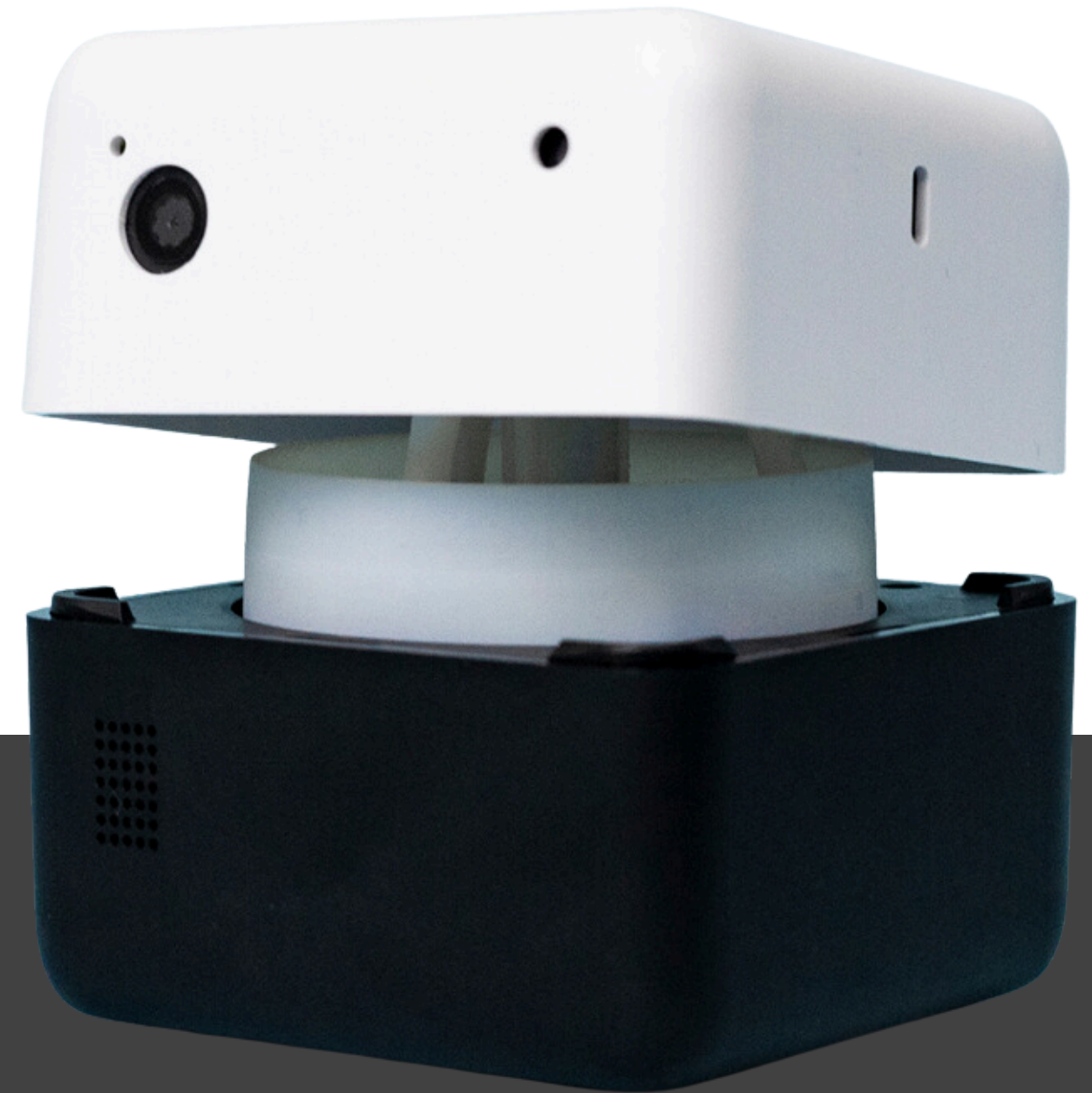


PLEN Robotics Inc.

Voice Analysis AI

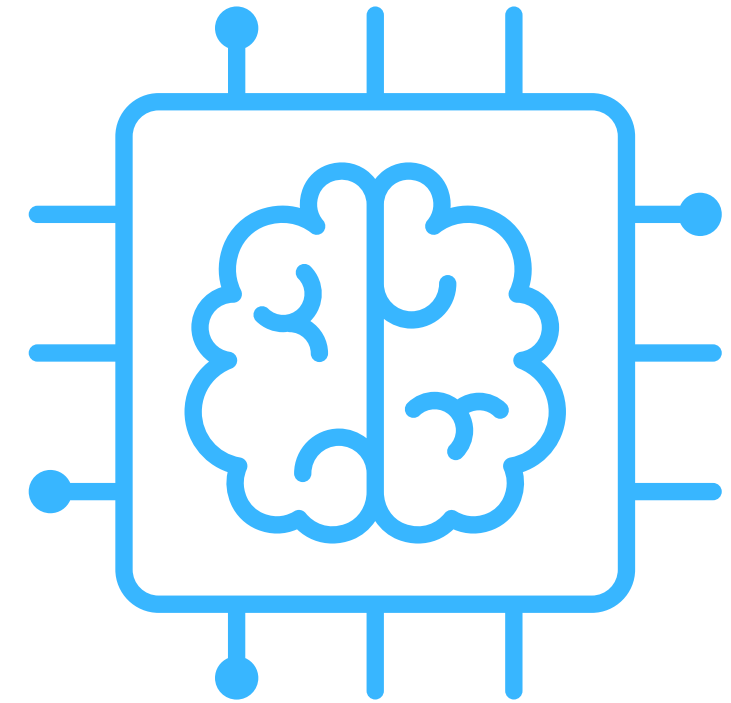


Problem

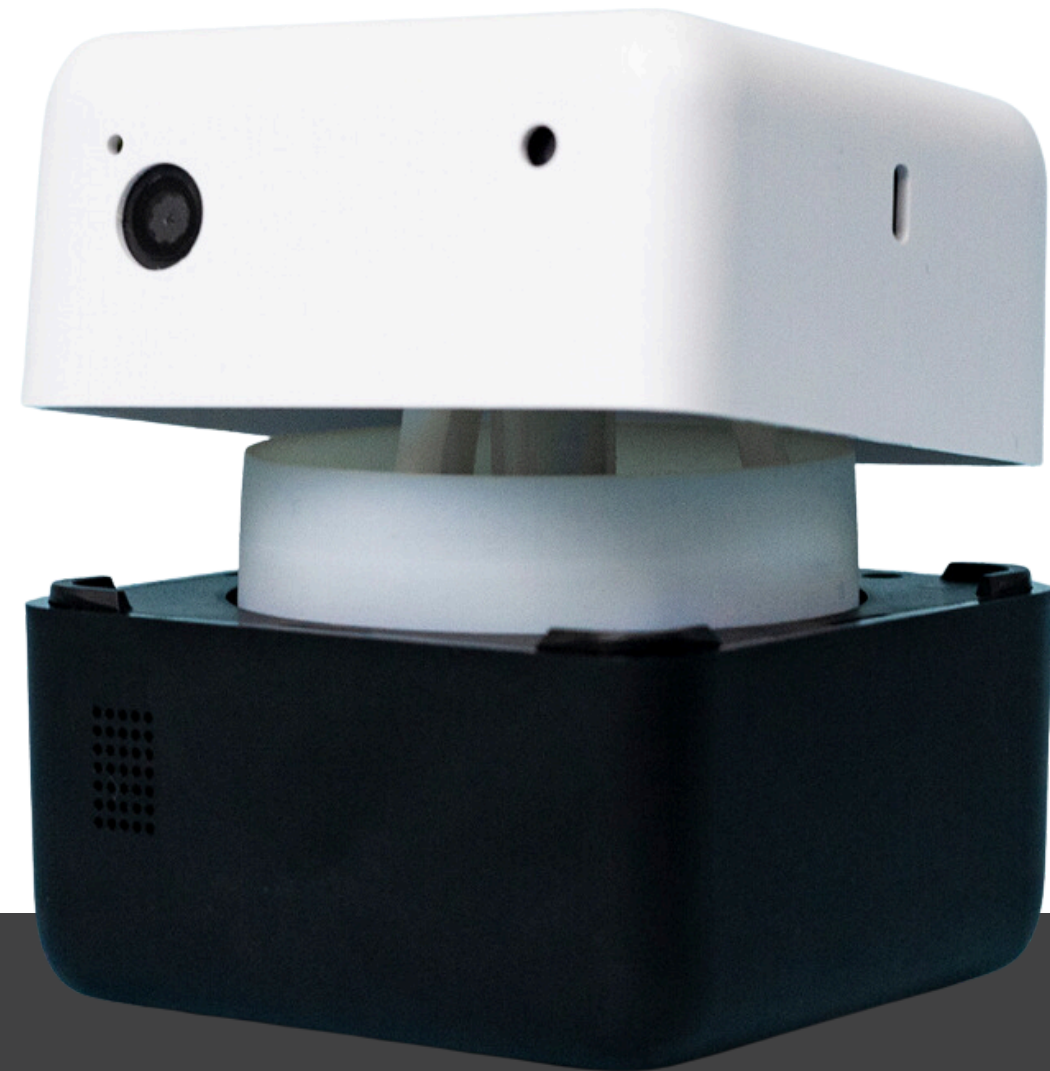
For businesses and institutions it is sometimes **hard**:

- to keep track of visitors/manage members
- to manage routine tasks due to the labor shortage
- to check attendance of workers, students, etc.

So, how can AI help with that?



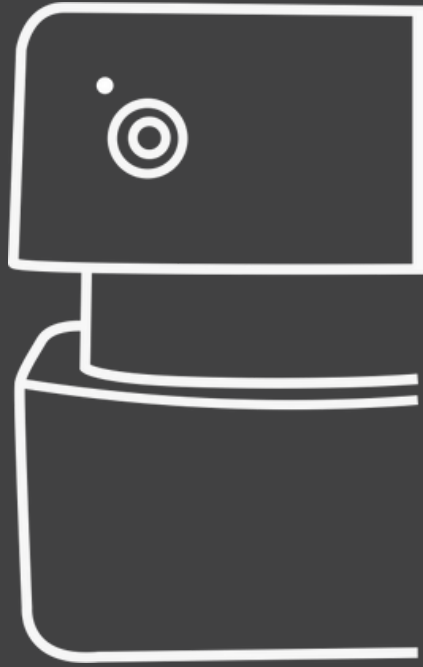
Solution



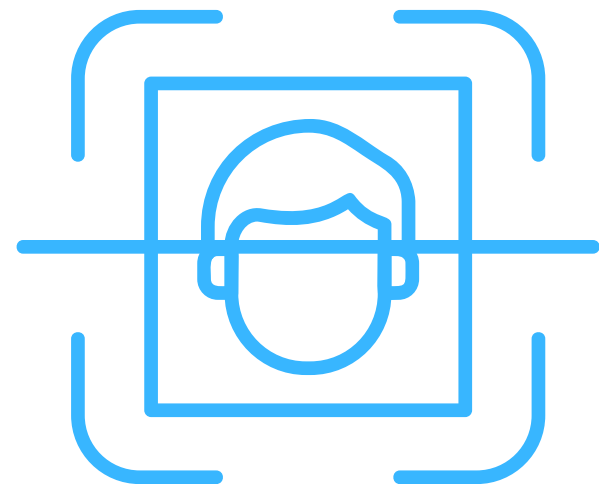
AI assistant PLEN Cube can:

- analyze your customers' demographic
- check attendance at work/school/etc. without paper cards or other physical sheets
- greets and remembers customers for you, manages members and reduces the amount of tasks

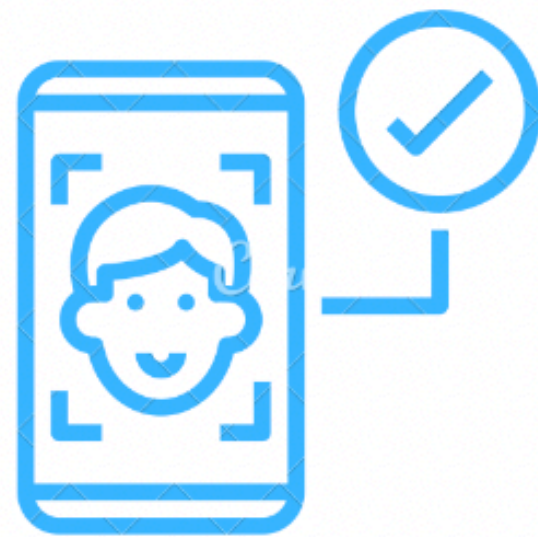
3 features of the PLEN Cube



① **Facial
Identification**



② **Facial
Recognition**



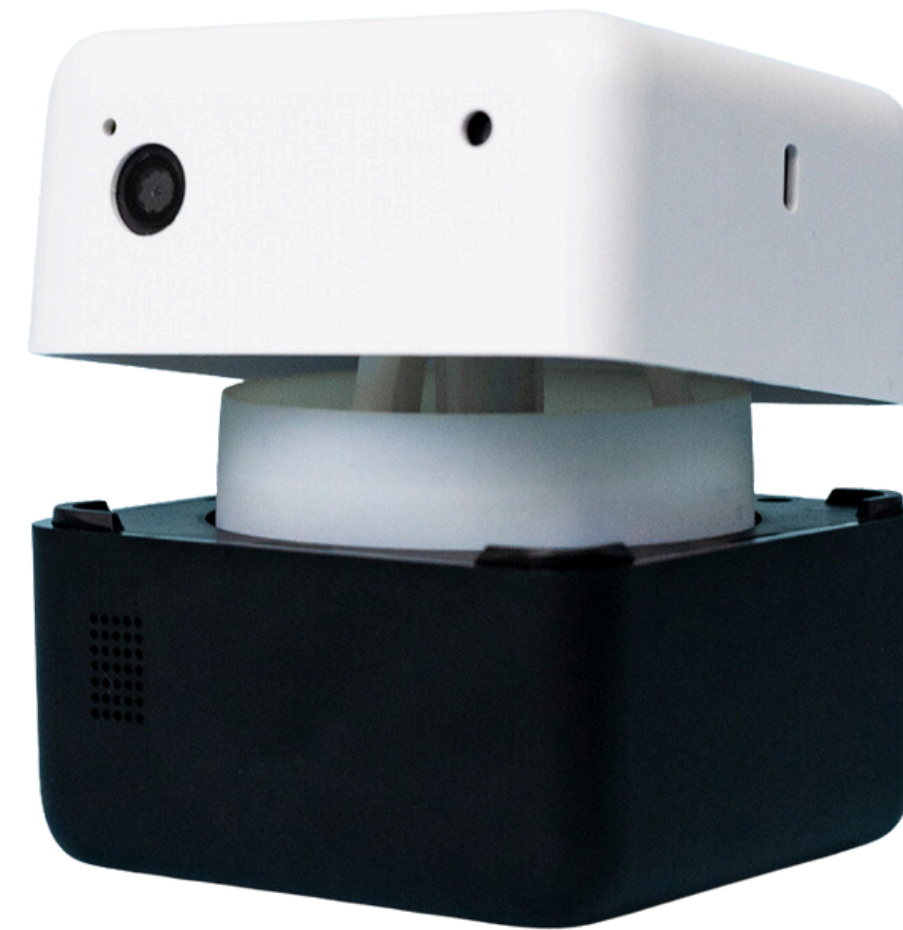
③ **Vocal
Recognition**



Functions of the PLEN Cube

HD Camera

External
Speaker



360° Rotation

The **PLEN Cube** uses Facial Recognition AI and a spoken dialogue system to connect customers and services.

- Palm-sized (74mmx74mmx74mm/300g)
- 360° Rotational Head
- Facial Recognition AI
- Spoken Dialogue system
- Wifi/Bluetooth

Service Concept: Specialties of the PLEN Cube



① A digital transformation that doesn't take hospitality away

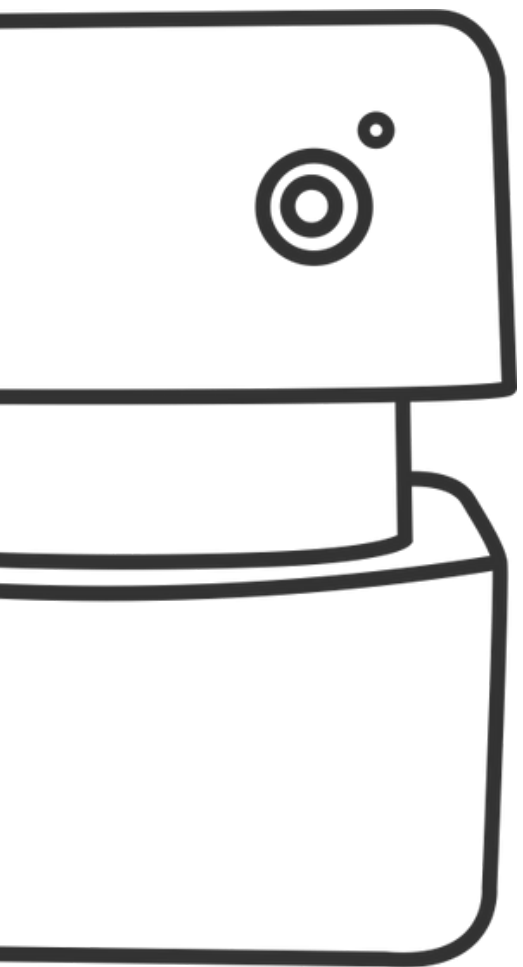
Facial identification accuracy of over 99%

Contactless service using vocal commands

360° Horizontal 15° Vertical motion that provides individual response

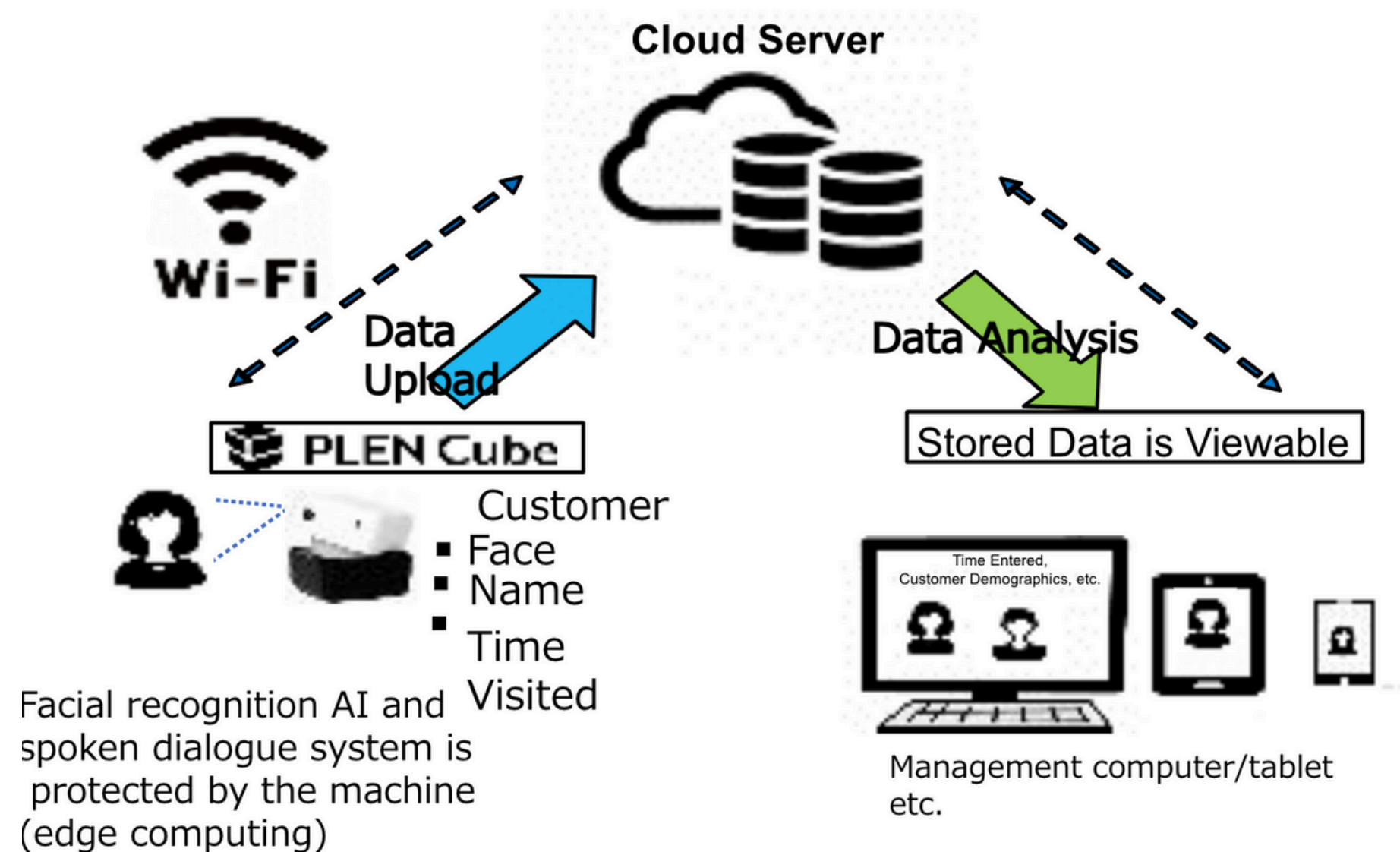
A max of 500* people can be registered

*Accommodations for over 500 can be made through discussions



② Obtained data is stored in the cloud

- PLEN Cube can obtain data and store it in the cloud
- Customer data can be viewed by managers in the cloud
- Key technologies are stored inside the cloud, making it possible to be used in any environment.



PLEN Cube in practice

PLEN Cubes placed in 2 schools to check the attendance.

Results (User Feedback)

- Able to automate attendance checks previously done by teachers manually
- Attendance check efficiency is increased, in a shorter time
- Cheating attendance (having others answer for another) lessened
- Previously hand-written attendance management systems being digitalized



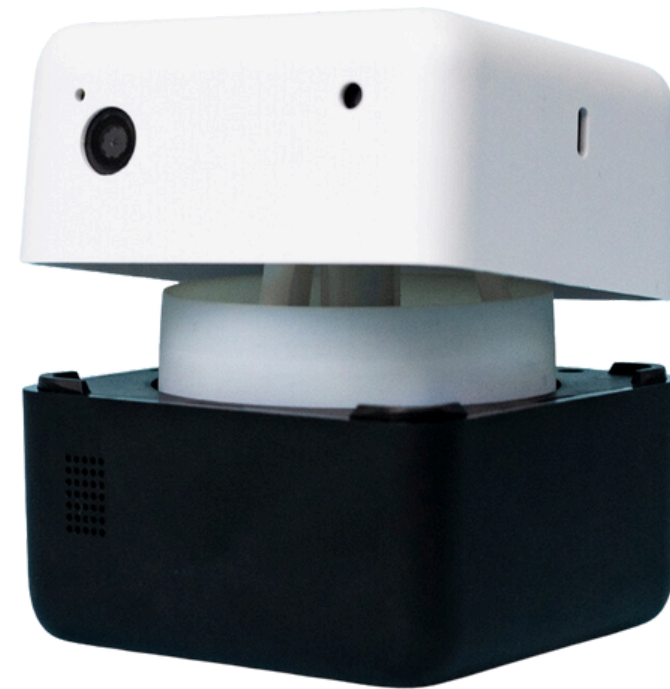
Problem



- 15% of working-age adults were estimated to have a **mental disorder** while undiagnosed depression increases healthcare treatment costs by 2-8 times.
- Globally, around **12 billion working days are lost** every year to depression at a cost of US\$ 1 trillion per year in lost productivity.
- 80% of traffic accidents are due to **errors in human condition and judgment.**

What if we can prevent this?

Solution Care Cube



Voice analysis technology that can detect vocal cord tremors in just 3 seconds.

It monitors:
activity motivation,
concentration, attention,
and relaxation levels.

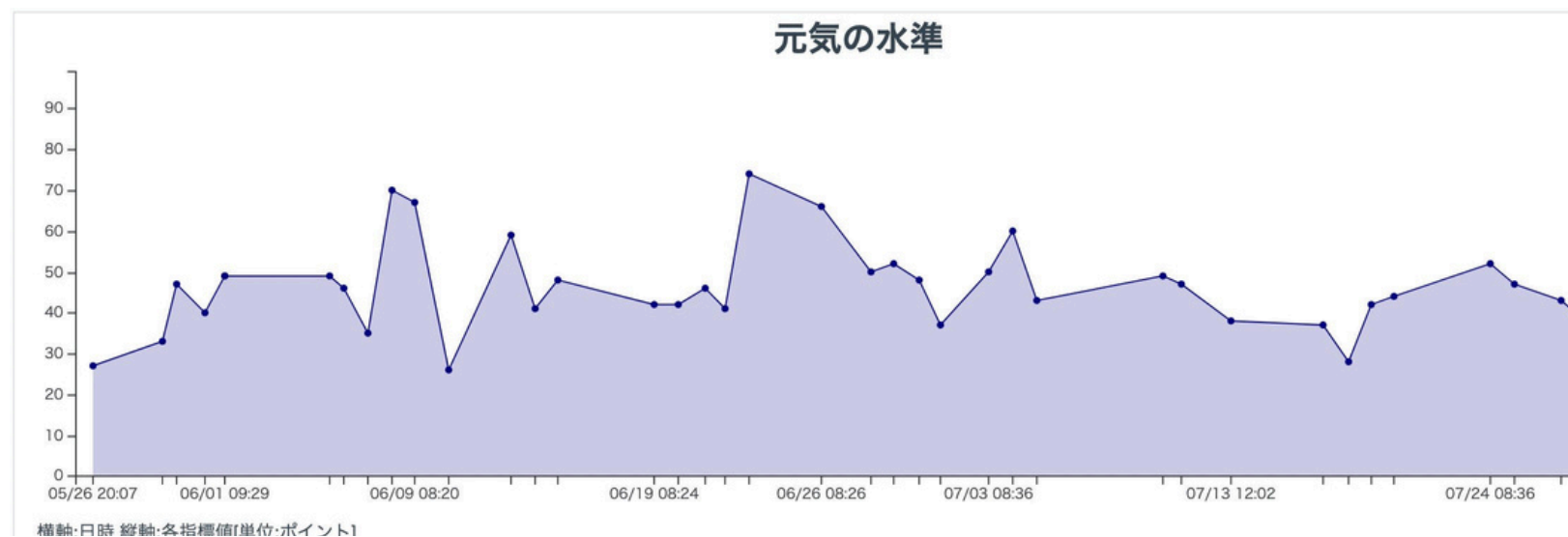
Care Cube can predict
the onset of depression
up to 2 weeks in advance
from daily data.

An AI assistant - Care Cube

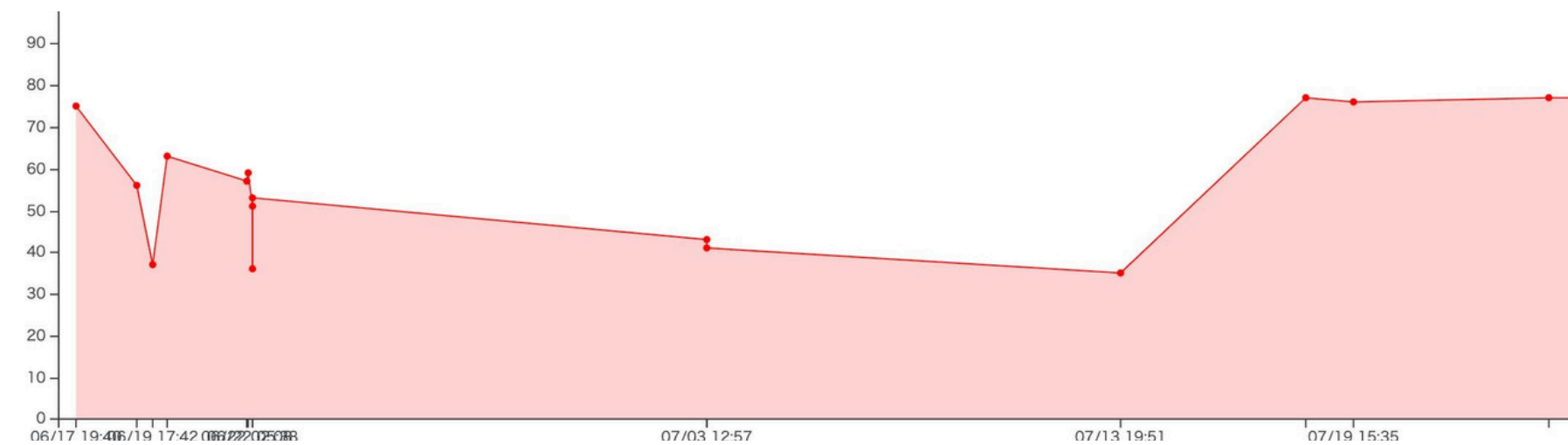


You can see the changes in stress level on the charts created by the Care Cube.

Normal stress levels



High stress levels



How to use the Care Cube

Show your face to the Cube

Speak to Cube for 3 seconds

You can see the record on the graph



Cube identifies the person

Cube gives you feedback

Where can you see the PLEN Cube?

Now we have more than 70 corporate customers

Accommodation / Restaurants



Biwako Hanakaido
Otsu City, Shiga Prefecture
Attendance management



Henn na Hotel Huis Ten Bosch
Sasebo City, Nagasaki Prefecture
Unmanned store operation



HCI ROBO HOUSE
Izumiotu City, Osaka Prefecture
special version

Offices



Kyoto Research Park
Shimogyo Ward, Kyoto City
health care



Port.cloud
Naka Ward, Hiroshima City
Entrance/exit management

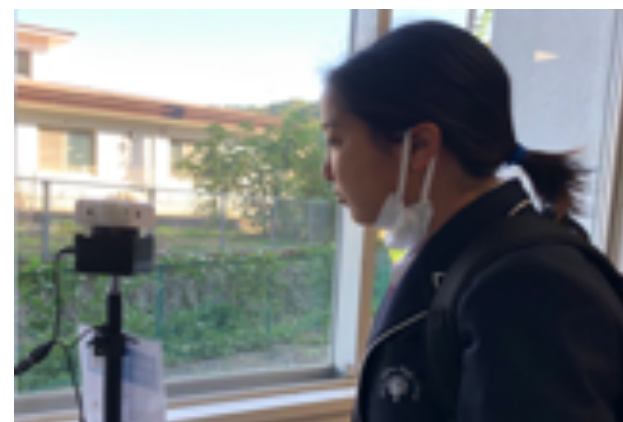


Watanabe pipe SEDIA PLACE
Shinjuku-ku, Tokyo
Entrance/exit management

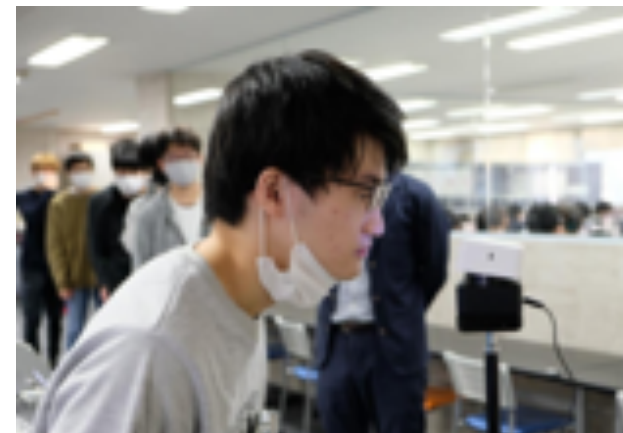
Schools



Kindai University (satellite library)
Higashiosaka City, Osaka Prefecture
Entrance/exit management



Jikei Gakuen High School
Mimasaka City, Okayama Prefecture
Health management/attendance management



Osaka High Technology College
Osaka-shi, Osaka
Health management/attendance management

Nursing care / childcare



Hinamorien
Kobayashi City, Miyazaki Prefecture
Entrance/exit management



Tsunetomi Nursery School
Nobeoka City, Miyazaki Prefecture
health care



Wisdom Academy
Toshima Ward, Tokyo
Entrance/exit management

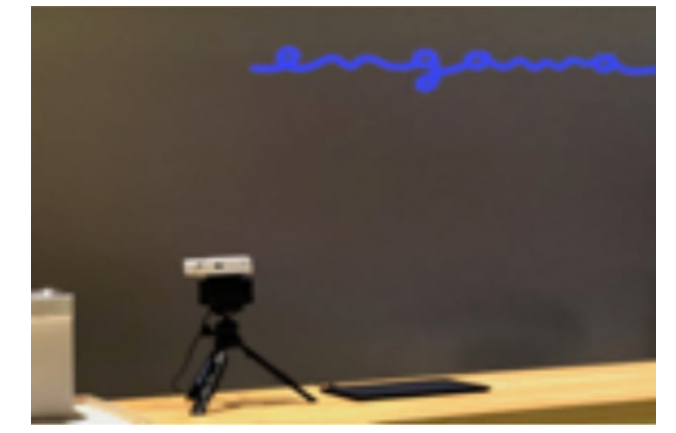
Other places



Abeno Harukas Kintetsu Main Store
Osaka-shi, Osaka
Product recommendations etc.



Mitsui Fudosan MFLP Funabashi III
Funabashi City, Chiba Prefecture
special version



Engawa Kyoto
Shimogyo Ward, Kyoto City
Entrance/exit management

Our team

We are based in Osaka and Tokyo with small but diverse team from development and marketing background.



Tomita Atsuhiko

- Corporate and Investment Bank, Barclays



Natsuo Akazawa

- developed world's smallest mass-bipedal walking robot
- won gold medals at the 2006 Robot Games



Competition



Direct competition

- AI-Powered Chatbots with Voice Recognition
- Virtual Personal Assistants
- Voice recognition startups like Nemesysco
- Startup with technology that can check emotions like Empath

Indirect competition

- Smart Home Assistants
- Attendance Tracking Systems (IC cards, fingerprints)
- All devices that can check your health condition

What will help us win?



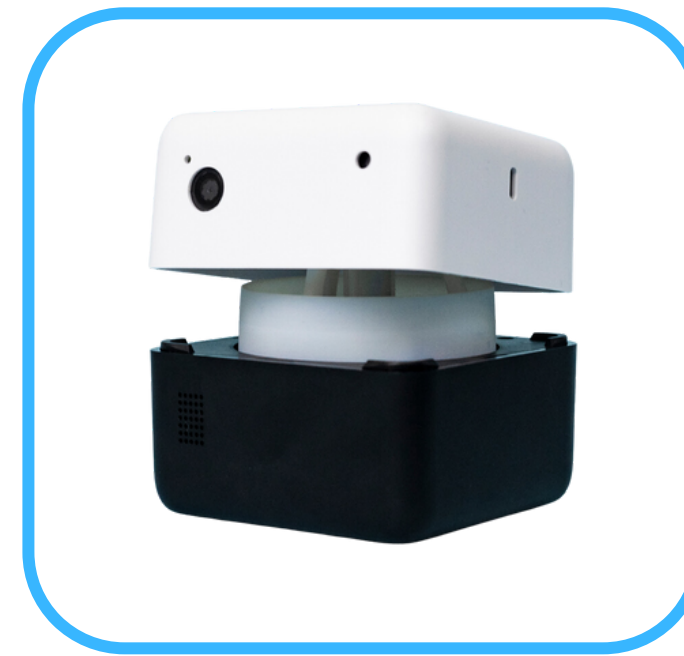
Unlike other business solutions we have:

- only 3 sec voice recognition (shorter recognition time)
- the best interference noise cancelling system
- contact-less health condition check
- edge-computing that helps to achieve lower cost
- easy to set up and use
- advanced AI capabilities for direct customer interactions

Business Plan

SaaS plus a box

- the device itself and a convenient monthly subscription service
- 300 users can be resistered
- additional customization options at an additional cost, ensuring that our solution is tailored to meet the specific needs of our clients

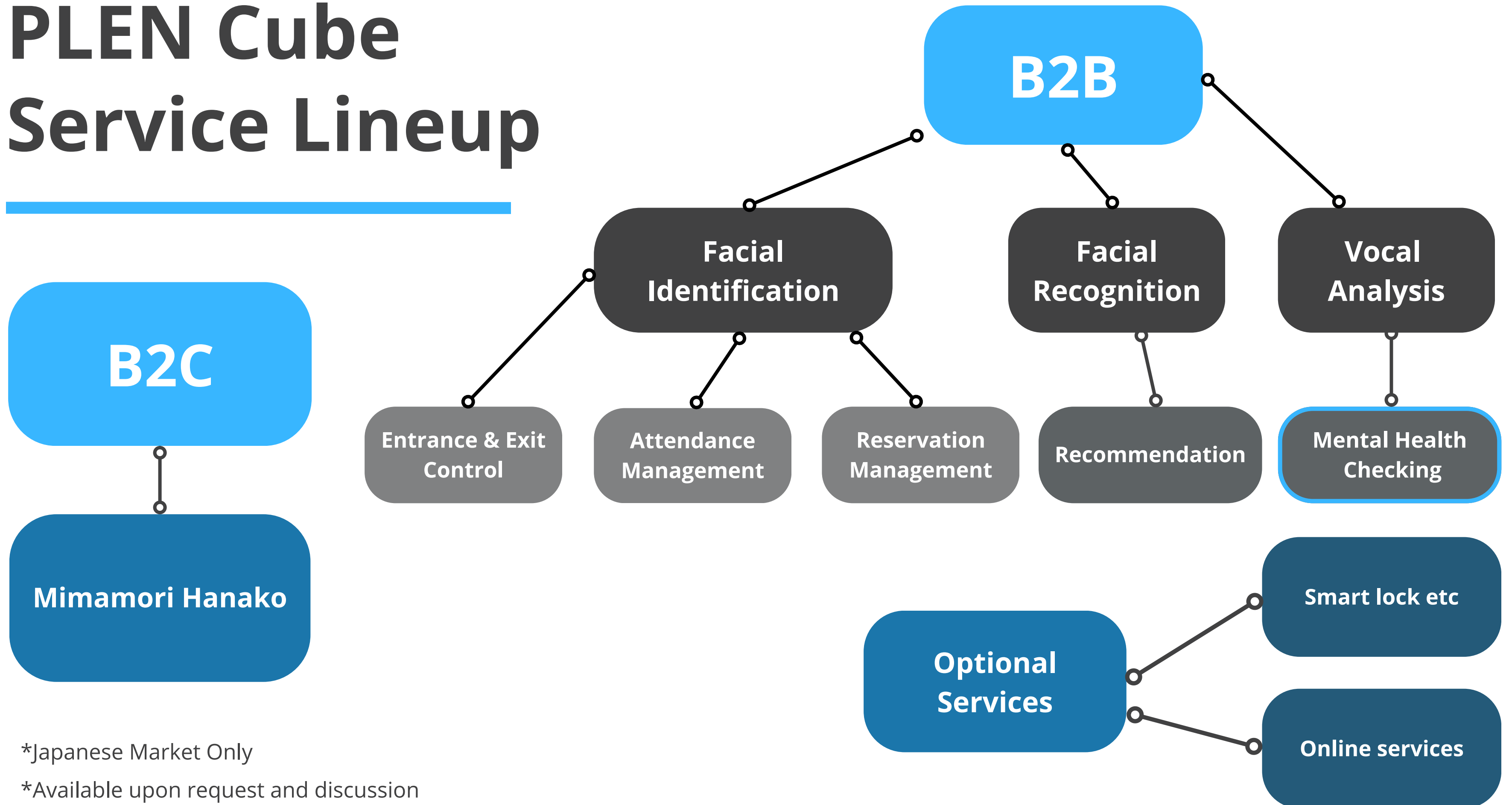


Device
\$1400



Service fee
\$60month

PLEN Cube Service Lineup



*Japanese Market Only

*Available upon request and discussion

PLEN Robotics Inc.

Established: June, 2017

Representative: CEO Natsuo Akazawa

Headquarter Location: 303, 4-6-3, Toyosaki, Kita-ku,
Osaka-shi, Osaka, 531-0072, Japan

E-mail: info@plenrobotics.com

