

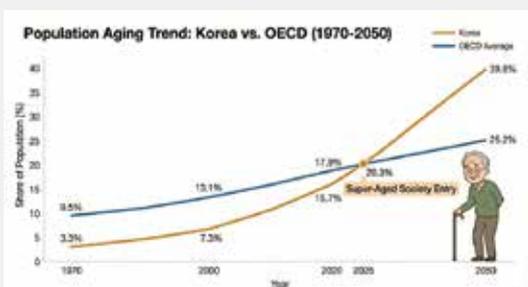
 **lemmy**



Lemmy - your caring companion, born from warm technology

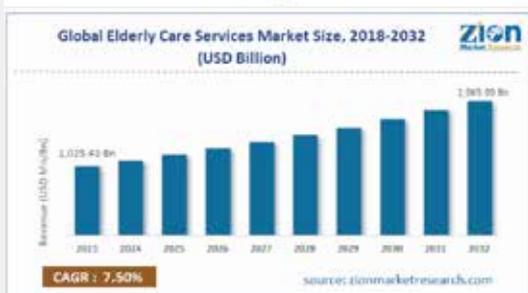
Why the World Needs Lemmy Now?

“Entering a Super-Aged Society”



As the graph illustrates, South Korea is set to cross the OECD average in 2025, entering a Super-Aged Society at an unprecedented speed. With the elderly population projected to reach nearly 40% by 2050, traditional human-centric care systems are facing a critical shortage.

Aged Society: >14% / Super-Aged Society: >20%



Starting in 2020, 700k–900k Baby Boomers (born 1955–1963) enter the elderly population annually.

By 2025, seniors will exceed 10 million; by 2050, they will reach 40% of the population.



However, this growing demographic is different. They are **“Active Seniors”**—financially independent, intellectually capable, and desirous of maintaining their autonomy. They do not need surveillance; they need **companionship** that respects their **dignity**.

Lemmy is the perfect bridge over this gap.

1) Daily Life Support: Companionship, Summoning, & Night Escort

Just call 'Lemmy', and it comes instantly.

From morning greetings to night escorts, it provides emotional companionship, autonomously tracking your voice and movement to find its way to your side.



2) Health Management: Emergency Response, Medication Reminder, Cognitive Rehab

Rapid response for any situation.

Lemmy manages medication schedules and instantly detects emergencies like falls. By sensing the environment, it navigates safely to prioritize user protection.



3) Convenience & Leisure: YouTube, Video Calls, & IoT Connectivity

Every day is delightful with Lemmy.

Enjoy music and video calls on a spacious display. Seamlessly control home appliances with simple voice commands for an effortless lifestyle.



Lemmy: A New Route Map for Senior Life

BI Concept: "A New Route Map for Life"

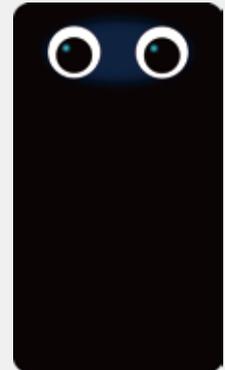
Visualizing Lemmy as the connecting 'Line' that bridges the isolated 'Dots' of seniors with the 'Dots' of the world.



UI Concept: Breathing Life into Brand Identity, Lemmy's Eye UI

Designed around the BI motif of 'Connecting Dots and Lines'.

- **Visualization:** Transforms the BI structure into iconic white eyes and black pupils.
- **Dimensional Detail:** Blue glitter pupils symbolize the BI 'Dot', adding depth.
- **Dynamic Interaction:** A pulsating 'Breathing Circle' creates a lifelike connection.



Design Philosophy

- **Approachable Form Factor:** Designed with rounded contours to create a friendly and safe companion for the home.
- **Enhanced Accessibility:** Features a spacious display ensuring clear visibility and easy operation for elderly users.



Brand Identity: The Meaning of "Lemmy"

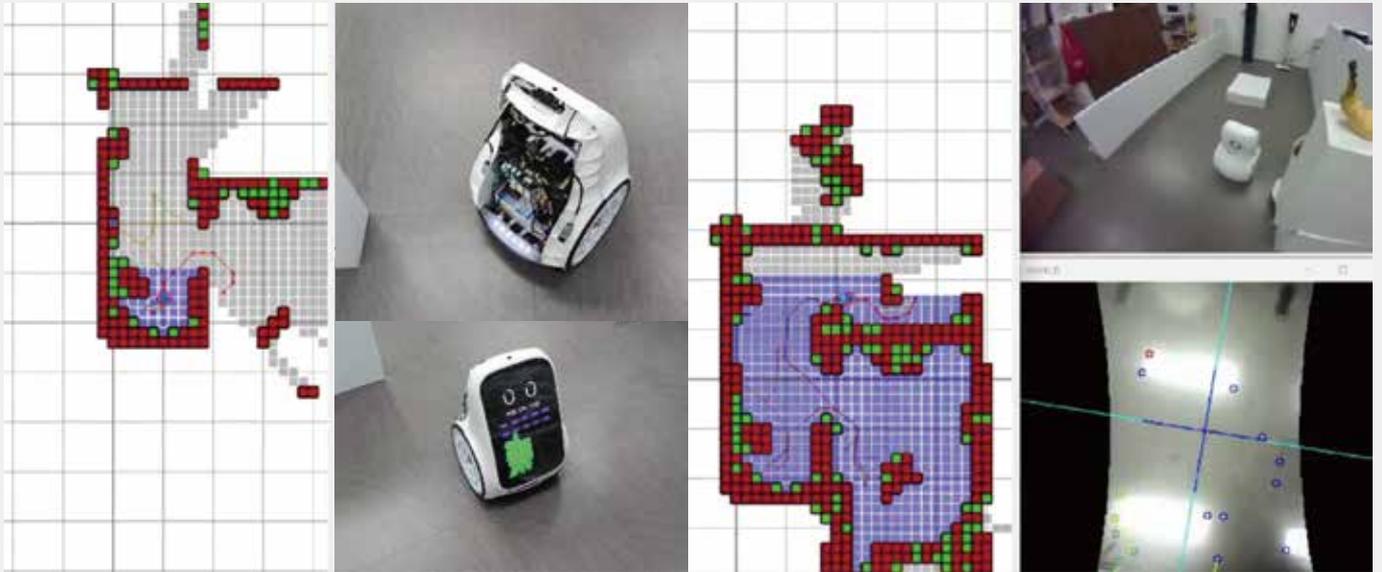
A name that embodies both devotion and family.

The name 'Lemmy' carries a dual meaning. Globally, it is derived from 'Lemuel', symbolizing a guardian '**Devoted to You**'. Culturally, it reflects the affectionate Korean suffix found in terms like 'Adeul-laemi' (son) and 'Ttal-laemi' (daughter), representing the intimacy and warmth of a true **family-like bond**.

Smart Mobility & Connected Safety

Autonomous Driving:

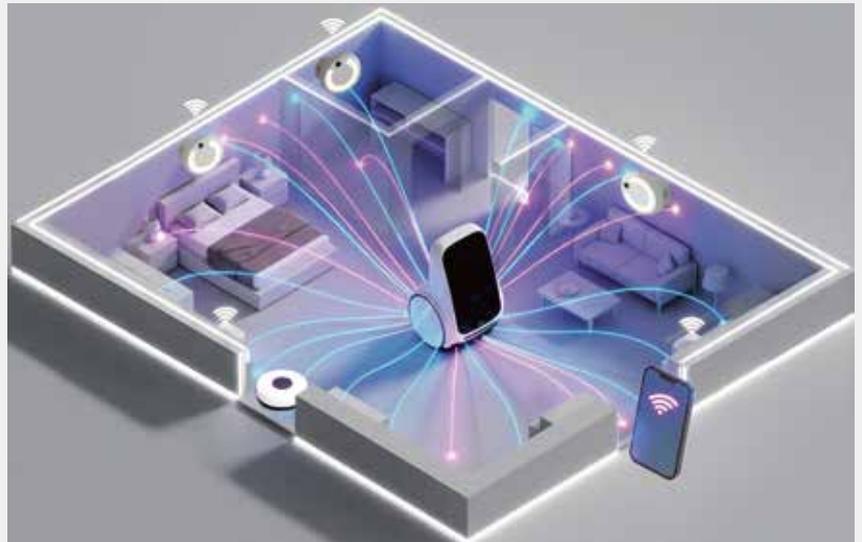
Obstacle avoidance using SLAM-based local mapping, stereo camera systems, and LiDAR sensing. Indoor space navigation through optimal path planning/generation.



Sensing Pod Integration:

Seamless care with no blind spots through Wi-Fi integration with 'SensingPod,' which detects situations even in rooms without robots.

An organic ecosystem where [Lemmy], [Sensing Pod], [Gateway], and [Cloud Server] are interconnected.



Charging Station Functions

- **Precision Charging:** Uses sensors (Camera, LiDAR) to ensure precise autonomous docking.
- **Sensing Hub Integration:** Aggregates pod data to guide the robot, featuring a top LCD for status checks and commands.

Sensing Pod Functions

- Detects movements
- Fall Detection
- Vital Sign Monitoring
- Indicate Air condition
- Dust Detection
- Sound Recognition

Communication Beyond Words

Generative AI: Context-Aware & Proactive Dialogue

Powered by LLM, Lemmy ensures natural, context-aware dialogue and proactive user engagement.



Emotional UI: Dynamic Expressions & Real-time Interaction

Features dynamic eye animations responding in real-time for a lifelike, engaging experience.

Voice Recognition: Sound Source Localization (SSL) & NLP

Uses a high-performance mic array with SSL and NLP for precise speaker tracking and accurate communication.



Vision AI Care: Advanced Real-time Monitoring & Response

Sensing Pot monitors real-time status, automatically summoning Lemmy and alerting guardians during emergencies.

Life and convenience



Smart Medication Management

Systematically manages medication with smart real-time alerts and comprehensive logs



Smart Home Hub: The Core of Connected Living

Acts as the core gateway for smart living and effortless appliance control.



Night Escort: Secure Path Lighting

Safely guides every step in the dark with smart LED lights.



Easy Entertainment: Direct YouTube Access

Offers instant entertainment via simple, voice-enabled YouTube search.



Expandability: Brain Fitness & Lifelong Learning

Promotes cognitive vitality and learning via a diverse third-party app ecosystem.



Video Calls: Seamless Visual Communication

Facilitates effortless communication with family and caregivers via high-quality video.

Lemmy Series Specification

Launch Date	2026. Q3-Q4
Dimensions	320 × 337 × 490 mm
Weight	8 kg
Navigation	Stereo Vision SLAM + dTOF + LiDAR
Speed	0.4 m/s (Max 0.85 m/s)
Climbing	5mm (Threshold)
Vision Sensor	Stereo Camera Module
Distance	LiDAR / PSD(Cliff) / dToF / USS
Display	TVOC / Dust / Temp & Humidity
Connectivity	Wi-Fi, BT, BLE, USB, etc.
Input Sensor	Curved Touch Display, Touch Pad
Speaker	10W Dual Speaker (Woofer Type)
Battery	Li-ion 21700 (7S1P / 2P)
Capacity	5,000 - 10,000 mAh
Charging Time	3 - 5 Hours



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