Multimodal Driver Input & Reasoning

VISION & SOLUTION

An intelligent car that can think and talk

Developing a voice input technology was key to **create a conversational interaction between human and vehicle**. The goal was to enable the GhostOS to execute tasks through **verbal and non-verbal commands**. The technology was based on using a mix of on-device cloud-based voice to text and LLM reasoning to enable capabilities from operating the car itself to finding the best options to shop on the way home and much more.

PROJECT BRIEF

TIMELINE	PROJECT SCOPE	CONTRIBUTORS	MY CONTRIBUTIONS
2021 - 2024	SW Product Experience Applied AI	Peter Crandall Darryl Day	Product Ownership API Design User Research Product Design Technology Invention

Mario Delgado Elysian *m@mario.design* *+1 415 683 6861*

Voice Input UI

Spatial Audio Alerts

VISION & SOLUTION

Take advantage of people's senses in order to intelligently direct their attention in critical moments

Ghost thinks, operates, & lives spatially and so should its audio. On principle then, Ghost audio is diegetic — **spatial surround sound that always has an identifiable source in the world**. It also is a way to more directly differentiate important sonic moments from the music, podcasts, & entertainment sharing the same sound system. R&D work leveraging spatial data from the Ghost Real-Time Perception System to render 3D audio cues in a vehicle, **adding an additional level of realism and immersion to the driving experience.**

PROJECT BRIEF

TIMELINE	PROJECT SCOPE	CONTRIBUTORS	MY CONTRIBUTIONS
2021 - 2022	Sound Design	Basheer Tome Jerremy Laessler	Creative Direction Sound Design User Research

Spatial Audio Demo

Video with Sound, 15 seconds

Mario Delgado Elysian *m@mario.design* *+1 415 683 6861*