Design Principles for Ghost HMI

Create Ultimate Comfort for all Passengers at the Center

Make every expression **human-centric.** Create a system that is in tune with the **driver's needs that it can estimate and serve the driver's intent across the entire vehicle experience.**

Ghost unifies *all* vehicle experiences under a single runtime.

Our incumbents choose to separate Human interfaces between infotainment, instrument clusters, AC controls. The same system that can drive the car can also set the right temperature in the cabin.

Create true Intelligence through Contextual Decision-Making

Any action of Ghost is the function of the context of the situation: How it drives, how we **show** that Ghost is in control, how it parks, how far it opens a door all depends on knowing the complete environment.

Enable real-time adaption of information from driver, environment, and car. No signal is too small to affect the choices of the vehicle in all cases.

Focus on physics-based reasoning over brittle object classification.

Traditional self-driving systems are rigid and fragile—they fail when encountering edge cases like ambiguous road signs or unexpected obstacles.
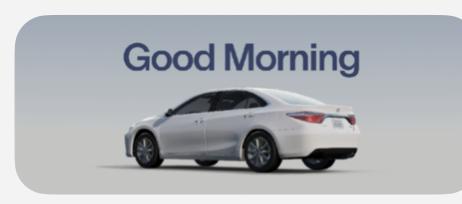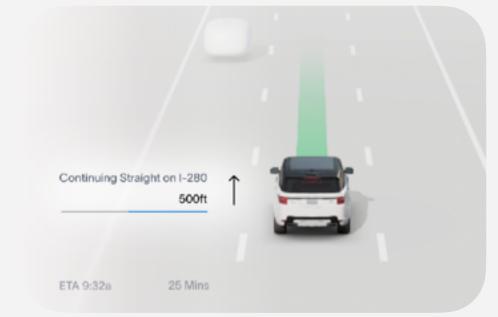
Scalable and Compatible Hardware

Use affordable hardware such as standard cameras and sensors to makes self-driving technology accessible for everyday vehicles.

Design in a way that it **can be used in any vehicle**

Ghost cost 1/10 the price of any other self-driving platform available at the time.

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

Safety-Critical User Journeys

To create a detailed user journey, I led in-depth team discussions to identify and analyze the many touch points that shape the driving experience.

By breaking the journey into stages—such as discovery, engagement, and post-use—we mapped key actions, emotions, and pain points, ensuring a holistic understanding of user needs.

Each touchpoint was aligned with our core values of safety and comfort. We examined how users interact with safety features and how design elements like ergonomic seating or intuitive controls enhance their experience.

This approach ensured actionable insights while fostering a unified commitment to delivering an exceptional driving experience.