Project 2 Report

Porsche

Pros: Simple design, doesn't take away driving experience. Only displays only what you need to see(speed, rpm, oil temps). Center console has all toggle buttons. Driver focused design, nothing flashy to distract you. Physical buttons with lights to indicate if on or not.

Cons: Center console display is not big but there are many buttons around it. Being a Porsche all these buttons allow for quick access to changing a driving setting but makes for a less sleek design. Some of the buttons are hard to reach behind the shift knob.

Tesla

Pros: Sleek design, no buttons, only one big screen, screen can easily display everything you need to see. Tesla is well known for how user friendly their UI is.

Cons: Changing things like the AC, radio, ec. Require you to press multiple buttons on screen. Screen can be distracting, requires you to learn how to change everything and how to navigate the UI.

Toyota Pros Vs. Cons:

Pros: Speedometer and RPM gauges are analog so not prone to screen failures that would prevent driving, gas levels are shown precisely, minimal button design, center console screen not distracting

Cons: Not good looking, not much information is displayed On either screen, button placement is random with two Buttons separate from the rest

Lamborghini Pros Vs. Cons:

Pros: High quality LED/LCD displays, precise speed and fluid levels, not too distracting, lighting is subtle, everything within reach of driver, simple

Cons: Lots of buttons that can be confusing, car is not drivable if screen breaks, no drive mode for center screen to limit distractions

“Dashboard of the Future” Pros Vs. Cons:

Pros: Uniform design, sleek, seamless display, organized,no physical buttons, precise speeds and fluid levels

Cons: Large screen can be distracting, no physical buttons, potential screen burn-in, very busy screen, voice controls can be finicky, car not driveable if screen breaks

Common Uses of Car Dashboard and Center Console:

Car Dashboard: Provides information about potential problems, shows gas levels, shows engine temperature, shows speed, shows transmission gear, shows total miles on car, shows trip mileage, hazard lights control

Center Console: Provides cabin temperature data, allows adjustments of airflow, allows for music changes in bluetooth or radio, volume control, hazard lights control

Rare Uses of Car Dashboard and Center Console:

Car Dashboard: Display driving directions (augmented reality), show incoming text messages/ calls, heads-up display, show rear view camera when backing up, car sensor data, one dashboard screen to display all information

Center Console: Watch netflix/ play games, Self-driving features, GPS features, internet access, car sensor data, seat temperature control, massage seat controls, screen design adjustments

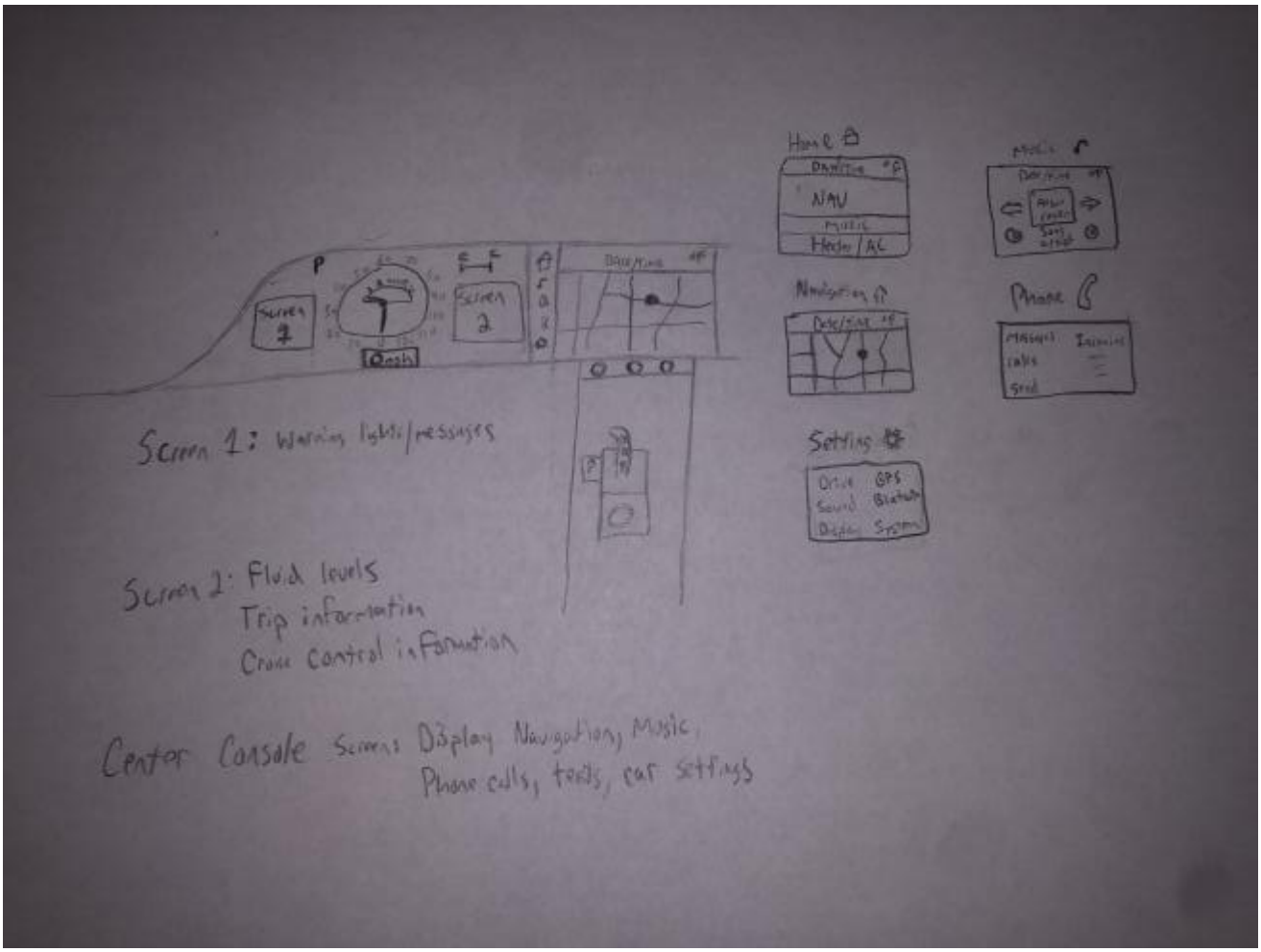
User Interactions with Car Dashboard and Center Console:
Car Dashboard: View current speed, RPM, time, outside temperature, oil temperature, gas gauge, maps/directions view current song(for cars that display this), current gear, total/trip miles, lane change warnings, fog/high-beam lights are on, warning lights

Center Console: User can adjust cabin airflow as well as temperature with appropriate knobs/button/screen press. User can adjust volume levels and EQ settings of music/video/games with appropriate knob/button/screen press. User can change GPS settings. User can activate any different driving modes like sports mode or self-driving mode. User can see in-depth vehicle information if the LED/LCD screen allows for such functionality.

Common Mistakes that can be made with Current Designs:

Car Dashboard: Too much information is distracting, things like incoming text, calls, and current song take focus away from driving and can be dangerous. AR directions also take focus away from actual road. Too little information is not helpful like displaying only speed and RPM gauge

Center Console: Accidental button presses that deactivate features. Very busy screen can take driver attention away from the road. Sensitive screens are prone to burn-in and potentially breaking. Console is angled awkwardly leading to unfocused drivers trying to see settings. No built in drive mode to prevent distracted driving.



Prototype Sketch