PROJECTING A SAFER DRIVING EXPERIENCE

CONTEXT

IMPROVING DRIVER SAFETY
Head-Up Displays have no negative effect on driver response times and can replace the need for the use of cell phones during transit.

MAKING HUD’S MORE ACCESSIBLE
VRROOM’s development cost less than $350. Cost-conscious drivers could upgrade their cars for a reasonable price.

DELIVERING ACCURATE INFORMATION
Our system uses trusted APIs such as Google Maps for navigation, and pulls car information from the car’s diagnostic panel.

PROVIDING A SEAMLESS EXPERIENCE
VRROOM works via voice inputs, which come naturally to drivers and does not require much training.

HARDWARE

DISPLAY DRIVER
Renders the graphics on our application and pushes them to the Display Panel.

PCB
Regulates the power flowing into the system.

HEAT SINKS
Distributes heat from LEDs so the system won’t overheat.

DISPLAY PANEL
Renders our interface images, acting as a screen display.

LIGHT DIFFUSER
Evenly redirects light from the LEDs to the display panel.

LEDs
Main light source for our custom display. Brightness is adjustable by the driver.

APPLICATION

REFUEL INDICATOR
Displays fuel consumption and the recommended time to refuel. Timed alerts have a countdown icon.

SELECT A GAS STATION
Drivers can select a gas station to refuel via voice commands.

GAS STATION RECOMMENDATIONS
Drivers receive recommendations based on our list.

ADDITIONAL OPTIONS
Navigate to other modules without having to rely on timed alerts. Any added features could easily be accessed through this menu.

WAYFINDING TO GAS STATIONS
Drivers receive step-by-step instructions to get to selected gas stations. The fuel indicator remains on the screen.