Reimagine the Road.

Introduction

WATTZ is a conceptual Augemented Reality Global Positioning System Head Up Display (ARGPSHUD) which projects your GPS against your windshield for easier navigation purposes and reduce overall distraction time. WATTZ is designed minimally so that only the essentials of GPS information is displayed in front of you to prevent further distraction from the road.

Problem

In unfamiliar surroundings, driver's can struggle to navigate even while using current GPS technology. Confusion created by dividing attention between GPS in the road increases the overall time that a driver is distracted from the road.

Goal

Help drivers navigate more efficiently and reduce amount of time it takes to make decisions based on information displayed on HUD, reducing overall distraction time by GPS.

Proposed Solution

Design a minimalist HUD display, innovating on current ARGPSHUD designs that will more efficiently communicate necessary information needed to properly navigate.

Research Methods

Secondary Research on existing ARGPSHUD models and simulation models

Survey conduction to understand types of drivers and opinions of current GPS applications

User testing HUD size, icon comprehension and layout understanding

Problem Findings

Users all utilize current GPS technology in different ways

Current GPS technology usability has a very wide range of ineffectiveness due to both user error and computer error

ARGPSHUD technology is very new, yielding less overall research on its effectivness, as well as less total real world HUD’s to conduct research on

Research Finding Highlights

Studies showed that AR-HUD increased the ability for drivers to properly wayfind in a real and simulated areas they were not familiar with.

Studies showed that the amount of time that users looked away from the road to view the ARGPSHUD was less than the average time eyes were taken off the road when using an external GPS device
(phone or console screen).

100 users surveyed between the ages of 16-66 revealed that use of proximity navigation and visual ways of wayfinding were more common than traditional wayfinding (street signs, highway billboards).

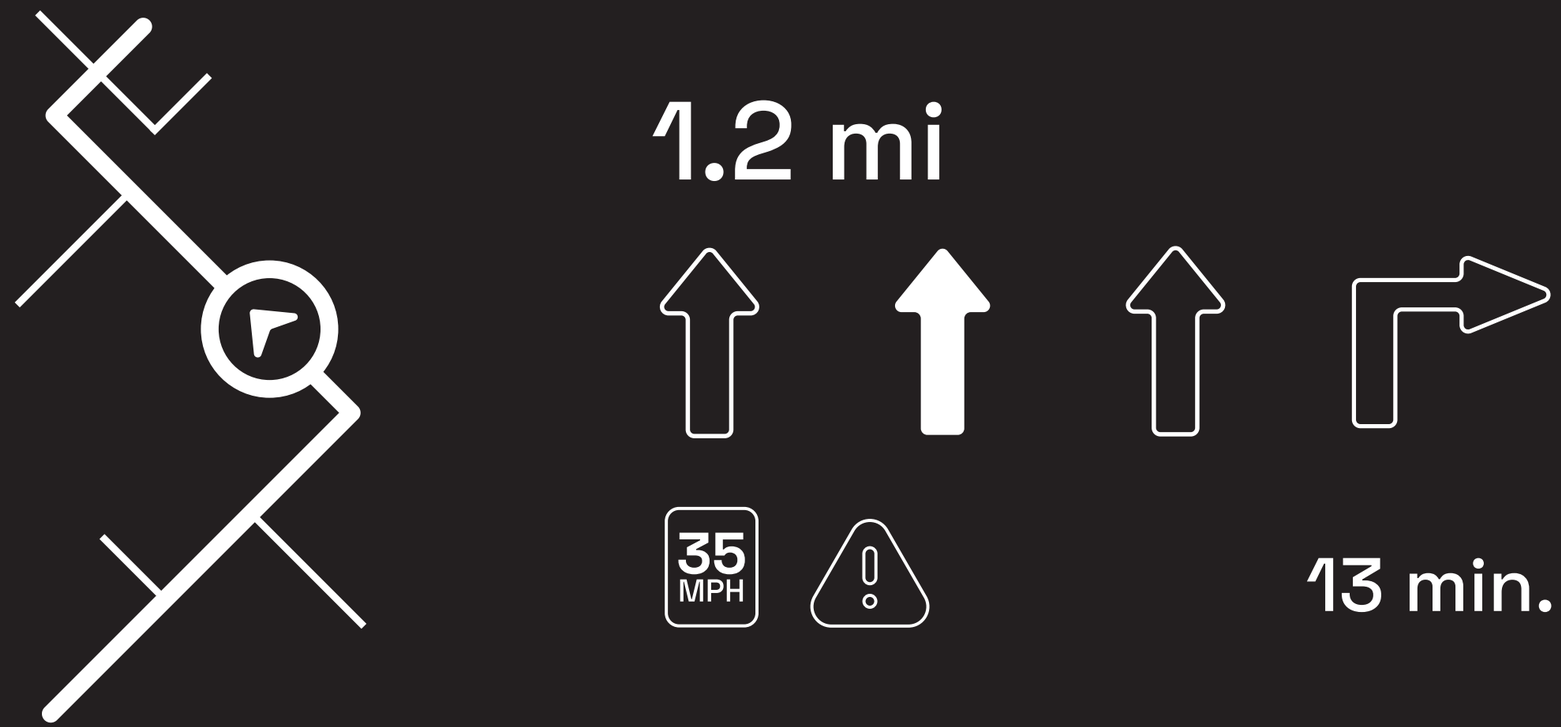
User's favorite GPS features were lane specification, the minimap, hazard indication and ETA.

User Testing

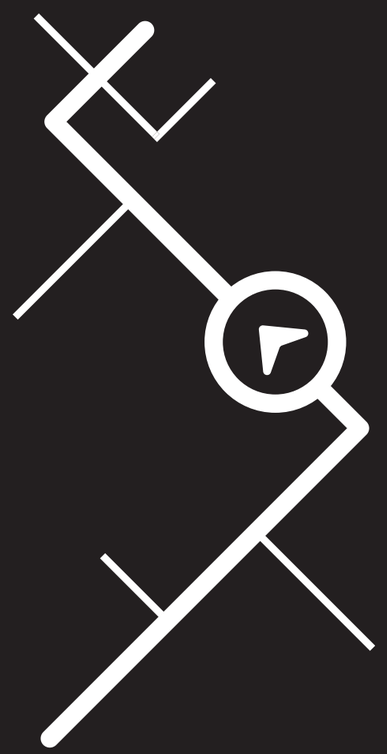
After designing different versions of the HUD, participants were asked which design appeared to be the most cohesive. Participants were also asked to describe what they thought the purpose of parts of the design were meant for and to test icon comprehension.

Participants sat in a vehicle with a mock up of the ARGPSHUD at differenvt sizes to determine what size was the most readable.

Before



After



Added color contrast
and increased sizing

35
MPH

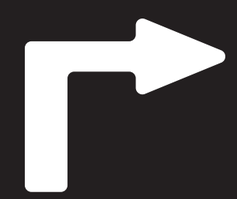
Added readable directions

1.2 mi
Blue Ridge Parkway

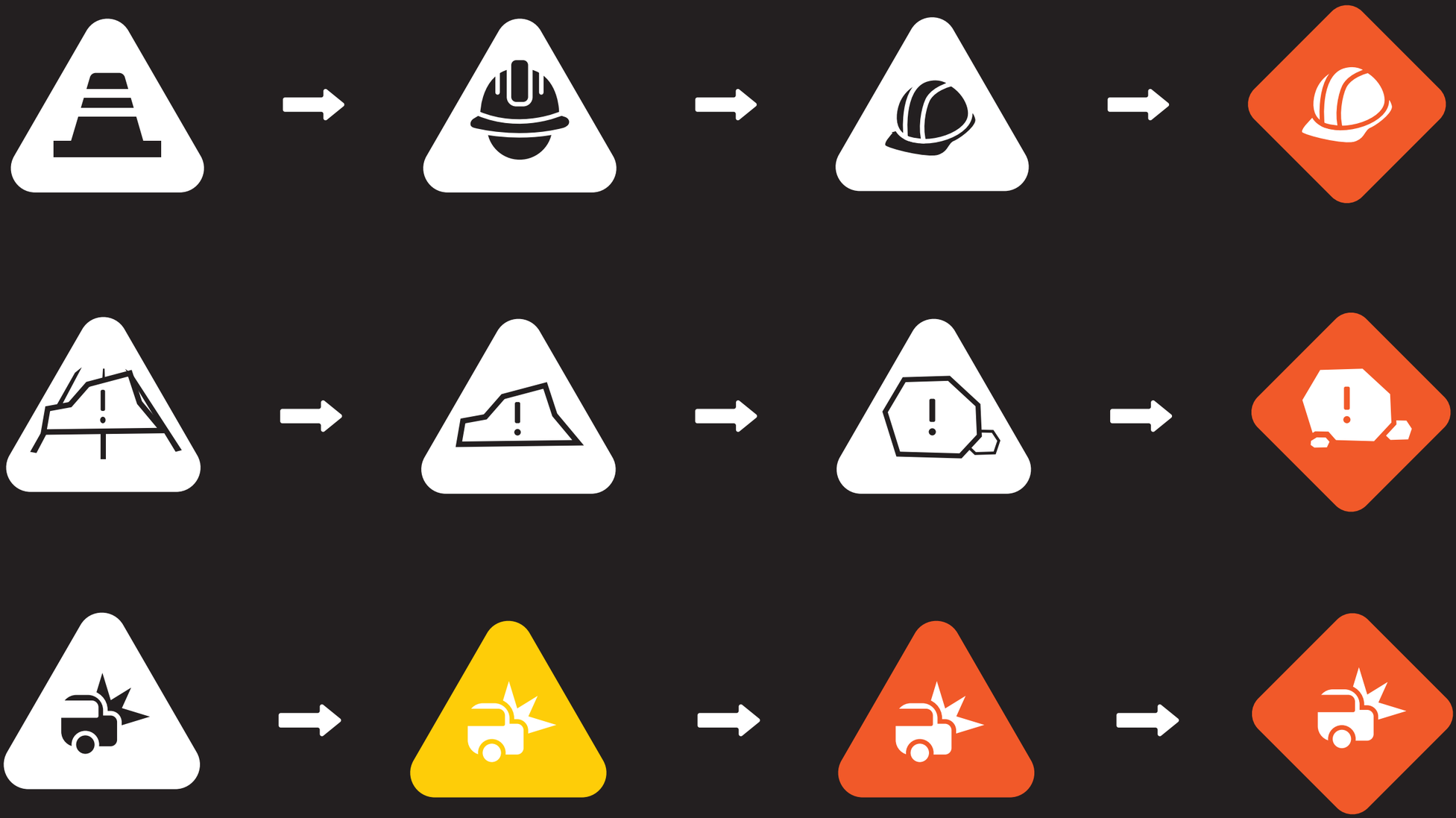
13 min.

Added time until destination
with new space created

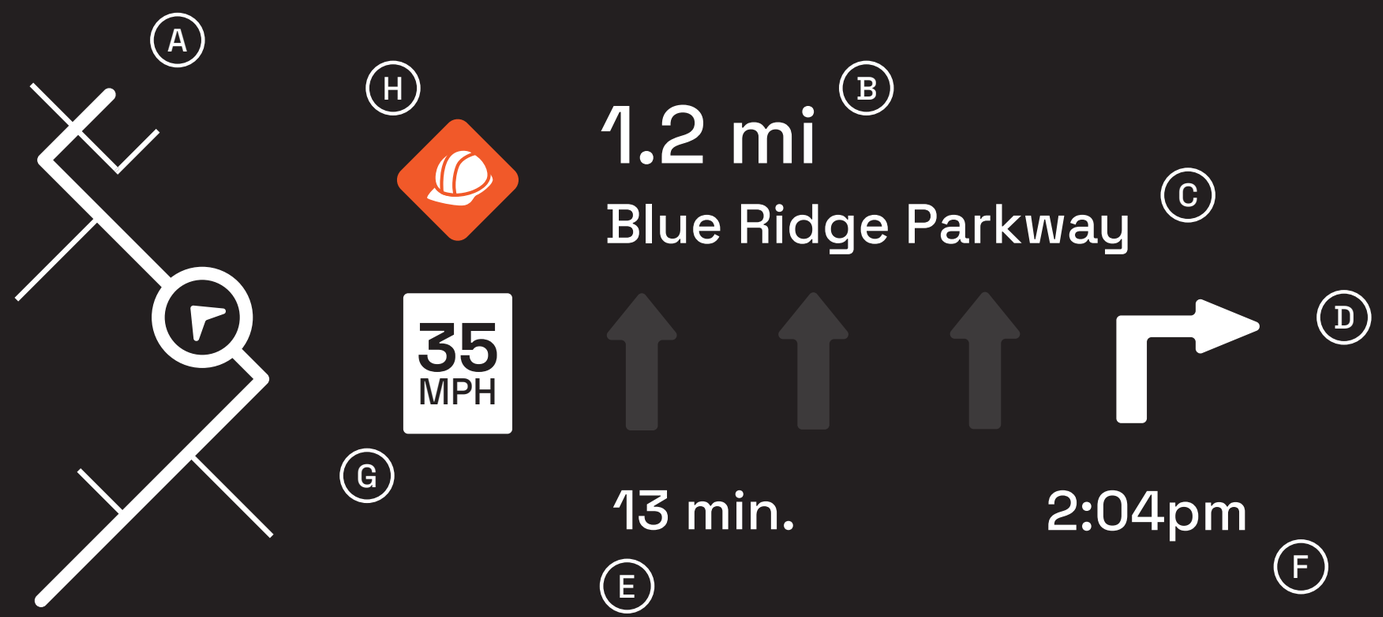
changed from stroke
to opacity fill to
increase readability



2:04pm



Features



A. Mini map that displays your approximate location in relation to the road

B. Indication of how far you must go until you need to perform said action

C. The location of which you need to preform said action

D. Specification of the ideal lane or lanes that will optimize your ability to preform directions

E. The time until you arrive

F. Estimated time of arrival

G. The current speed limit

H. Hazard indicator


1.2 mi
Blue Ridge Parkway
35 MPH
13 min.
2:04pm
H
C
D
F
E


1.2 mi
Blue Ridge Parkway
35
MPH
13 min.
2:04pm


1.2 mi
Blue Ridge Parkway
15 min.
2:04pm
17:41
BLUETOOTH
Kaynak
Gözat
Parça listesi
Cihaz Değiştir
Bilinmeyen Parça
Bilinmeyen Sanatçılar
Bilinmeyen Albümler
1/1

Virtural Lane Assist

The virtural lane assist (VLA) feature is an optional feature with the WATTZ application.The VLA is a projection of your current path that overlays on top of the road using AR technology. This feature can be disabled or enabled by going into your dashboard settings.

With VLA

Without VLA

Minimap

www.wattz.com

WATTZ

Quick User Interface Guide


Reimagine the Road.
www.wattz.com


M


Reimagine the Road.

Reimagine the Road.