



# Infrastructure Investment and Jobs Act: Advanced Impaired Driving Prevention Technology

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# Passage of Drunk Driving Prevention Provision in Infrastructure Bill

- What does the law mean?
- How did we get here?
- Where do we go from here?

## Essential Deliverables under the Law:

1. The National Highway Traffic Safety Administration (NHTSA) must establish a final safety technology standard within the required timeframe in the law.
2. U.S. auto manufacturers must install this lifesaving technology as standard equipment in all new cars within the law's timeline.

Technology is our

# TURNING POINT

in the War on Drunk Driving

## Alcohol -related traffic deaths:

**14%**

**INCREASE**

in

**2020**

**11,654 lives**

## Vehicle miles traveled:

**11**

**DECREASE**

**0%**

in  
**2020**



**PROBLEM:**

# Industry Was Slow

Various automakers had made tech promises, but the industry as a whole had **no sense of urgency** about getting drunk driving prevention systems into all cars.





**SOLUTION:**

# **Federal Action**

A federal standard was needed to compel **auto industry action** .

It's a two-step process:

1. Legislation
2. Regulation



# Americans Support Federal Action

## March 2021 Ipsos Poll for MADD

- **9 out of 10** support drunk driving prevention tech
- **3 of 4** back congressional action to require it
- **8 of 10** believe it should be standard in vehicles



# BIPARTISAN

## Legislative Effort

HOUSE:  
The HALT Drunk  
Driving Act

SENATE:  
The RIDE  
Act



# Strong Bipartisan Support

## Led to Passage of the Infrastructure Bill

- Provisions from the bills were included in the bipartisan **Infrastructure Investment and Jobs Act** passed by the House and Senate.
- This Act was passed on November 5 and signed into law by President Biden on November 15.


# Thank You to Our Partners



Your testimonies and letters of support for drunk driving prevention technology were instrumental to the passage of this legislation.



# Phase 2: The Regulatory Process Begins



**NHTSA** has three years to evaluate technologies and issue a final safety standard.

**Automakers** then have two to three years to implement the new standard.

**New cars** equipped with the NHTSA-directed technology could start rolling off the assembly line in 2026-2027.



# 3 Basic Tech Categories

1

**Driving performance monitoring** systems, like Advanced Driver Assistance Systems (ADAS) that monitor the vehicle's movement including lane assist and emergency braking

2

**Driver monitoring** systems that monitor the condition of the driver

3

Passive **alcohol detection** systems that determine whether a driver is drunk and then prevent the vehicle from moving

# We're Not Talking About Breathalyzers...

- These systems **are NOT** related to police breathalyzers or to ignition interlock devices that require a motorist to actively blow into a device.
- They **are** advanced, integrated and **passive** systems that detect impairment.



# MADD Is Tech Neutral

MADD is **not** pushing one type of technology.

MADD is **neutral** on what technology options are chosen.

We support whatever technologies are **most effective** at saving the most lives in the final safety standard.



# THE TRUTH - about - THE TECH

- Some argue it's **many years away** from being invented.
- But that's **not** true.
- Advanced passive technology systems to prevent drunk driving **already exist or are in development.**
- MADD found **hundreds of examples** of existing technologies that NHTSA should consider in its rulemaking process.

# Many Tech Options Exist

## One example: DADSS *(The Driver Alcohol Detection Systems for Safety)*

- Public/private collaboration between the federal government and auto industry, created to determine the best vehicle tech to stop drunk & impaired driving
- Its prototype was unveiled at MADD's 2015 National Conference and DADSS stated it would be available on cars in five years
- Date has been adjusted to 2024 for breath -based and 2025 for touch -based drunk driving prevention systems — which fits well within the legislation's statutory and regulatory timeline

# More Examples of Existing Auto Technology

1 Subaru

2 Volvo

3 General Motors

4 Nissan

5 Toyota



1

# Subaru

## Driving performance monitoring technology

In 2021, Euro NCAP gave the new Subaru Outback a **95%** for safety assist, with its safety system that detects signs of fatigue or impairment from the driver's eye movements combined with steering behavior.



The all-new but conventionally powered Subaru Outback achieves an outstanding score of 95 percent for Safety Assist! 🌟 The car is equipped with a system which detects signs of fatigue or impairment directly from the driver's eye movements and combines this with steering behaviour



Subaru Europe

5:46 AM · Sep 8, 2021 · Twitter Web App

## Driver monitoring technology



In 2019, Volvo announced its plan to deploy **in-car cameras and sensors** that monitor the driver and allow the car to intervene if a clearly intoxicated or distracted driver does not respond to warning signals and is risking an accident involving serious injury or death.

## General Motors

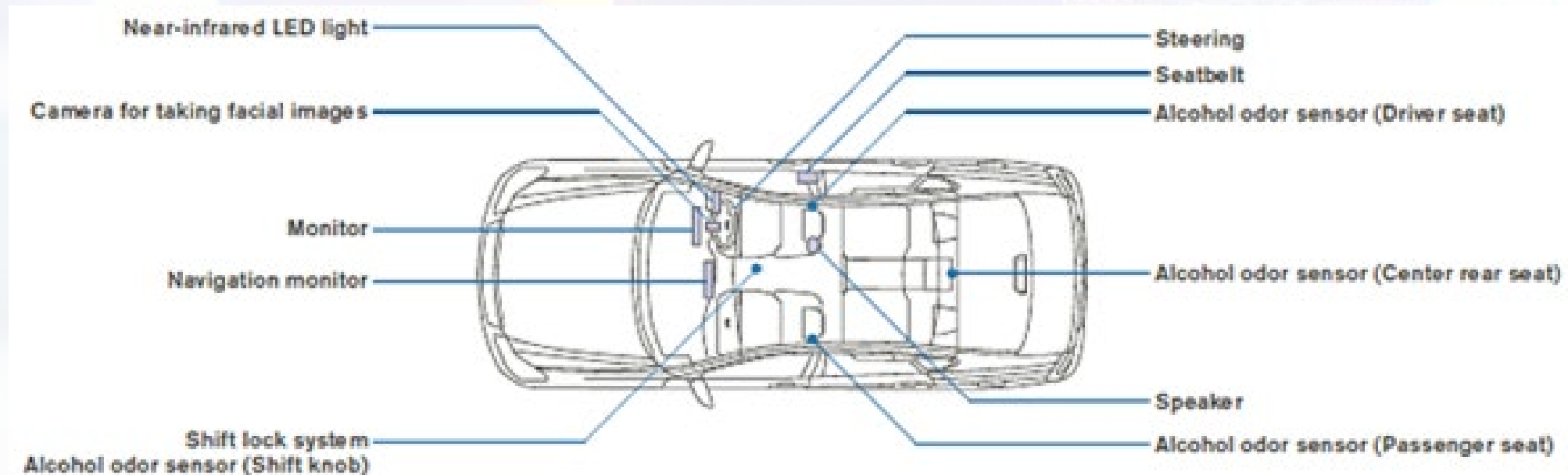
### Driving performance monitoring technology

GM unveiled Ultra Cruise, an advanced driver assistance technology that uses **cameras, radars and LiDAR** to enable hands-free driving in 95% of all driving scenarios. It plans to install Ultra Cruise in cars in 2023.



## Driver monitoring technology

In 2007, Nissan unveiled a concept car with multiple preventative features against drunk driving, including alcohol odor sensors, a facial monitoring system and by monitoring driving behavior.





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# Toyota



## Alcohol detection technology

In 2007, Toyota announced a drunk driving prevention system with hopes of having it in cars in 2009. The tech was described as a fail-safe system that detects drunken drivers and automatically shuts the car down if sensors pick up signs of excessive alcohol consumption. Cars fitted with the detection system will not start if sweat sensors in the driving wheel detect high levels of alcohol in the driver's bloodstream.



### Toyota creating alcohol detection system

Toyota is developing a fail-safe system for cars that detects drunken drivers and automatically shuts the vehicle down if sensors pick up signs of excessive alcohol consumption.



# Notable Links

Nissan: <https://www.youtube.com/watch?v=dV9LfD1CYhI>

Volvo: <https://www.media.volvocars.com/global/en-gb/media/videos/250162/in-car-cameras-and-intervention-against-intoxication-distraction-animation1>

Hyundai: <https://www.hyundaimotorgroup.com/story/CONT0000000000043965>

“It will also be possible to detect if the driver is intoxicated and block the driver from driving. Hyundai Mobis’ breathalyzer technology is a non-contact type that can measure just by exhaling a little. It uses optical sensor technology to detect the alcohol content in the driver’s breath to determine the blood alcohol level. This technology is much more accurate and convenient than electrochemical sensors that require mouth-to-mouth blowing.” –July 2022

# Technical Working Group: Independent Body of Experts

- Nat Beuse, Vice President of Safety, Aurora; Mothers Against Drunk Driving (MADD) Board Member
- Kadija Ferryman, PhD, Assistant Professor, Johns Hopkins Bloomberg School of Public Health
- Shannon Frattaroli, PhD, Director, Johns Hopkins Center for Injury Research and Policy
- Kelly Funkhouser, Program Manager, Vehicle Technology, Consumer Reports
- Shaun Kildare, PhD, Director of Research, Advocates for Highway and Auto Safety
- Anders Lie, PhD, retired, former Board Member, European New Car Assessment Program (Euro NCAP); former Traffic Safety Specialist, Swedish Transport Administration
- Stephanie Manning, Chief Government Affairs Officer, Mothers Against Drunk Driving (MADD)
- Jeffrey Michael, EdD, Distinguished Scholar, Johns Hopkins Center for Injury Research and Policy
- Stephen Oesch, retired, Former Senior Vice President, Insurance Institute for Highway Safety
- Roger Saul, PhD, retired, Former Director, Vehicle Research and Test Center, NHTSA
- Ken Snyder, Executive Director, Shingo Institute, Utah State Huntsman School of Business; MADD Volunteer and Victim of Drunk Driving
- Don Tracy, retired, former Vice President, DENSO North America
- David Zuby, Executive Vice President and Chief Research Officer, Insurance Institute for Highway Safety (IIHS)

The logo for the Technical Working Group (TWG) features the letters 'TWG' in a large, bold, blue sans-serif font. A white diagonal line with a blue outline cuts through the 'W' from the bottom-left to the top-right.

**Technical Working Group**

Advanced Impaired Driving Prevention Technology

**If you are a victim or survivor and would like to get involved in advancing this lifesaving safety standard, please contact:**

**policy@madd.org**

**MADD'S 24-HOUR VICTIM HELP LINE:**

**877.MADD.HELP**

**(1-877-623-3435)**





**THANK YOU!**

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