



Flash Memory Summit

Flash Memories for Autonomous Cars

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Autonomous Cars



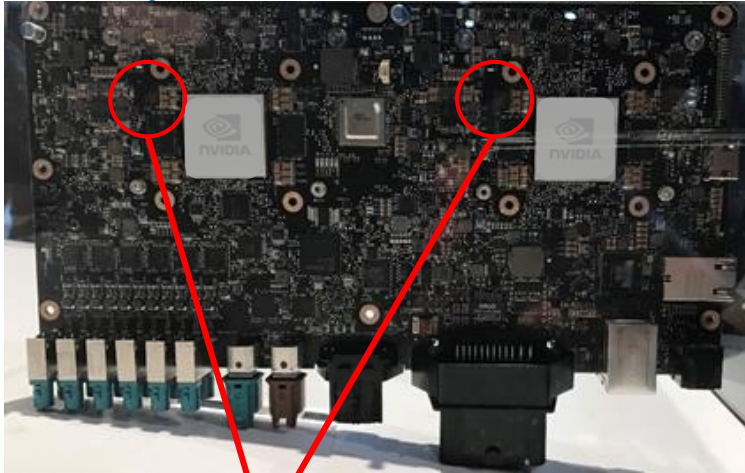
1957 Ad for “America’s Independent Electric Light and Power Companies” (art by H. Miller).

“ELECTRICITY MAY BE THE DRIVER. [...].

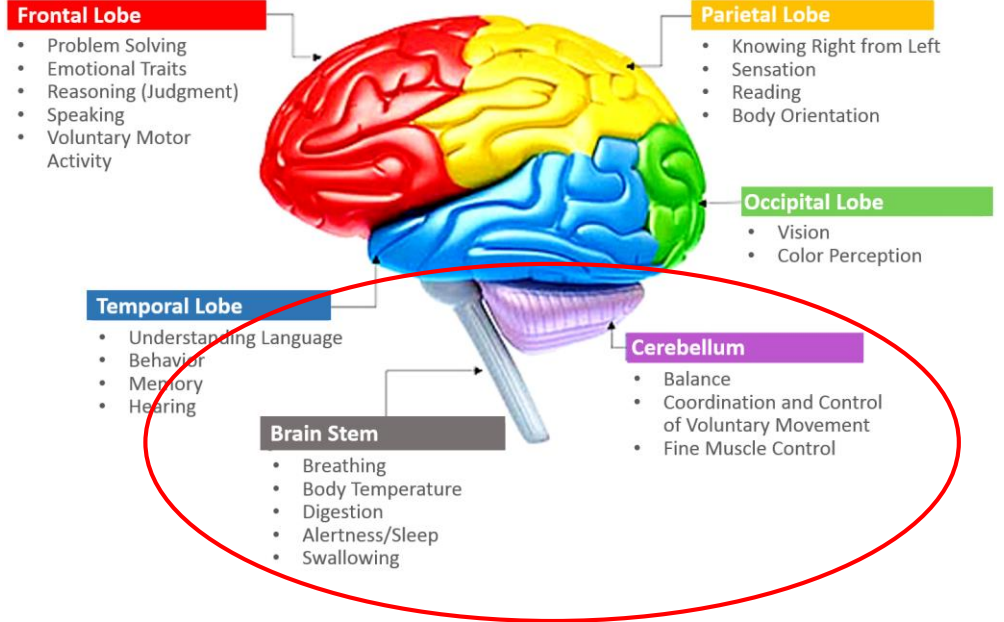
Highways will be made safe - by electricity! No traffic jams...no collisions...no driver fatigue.”



Meet Your New Driver!



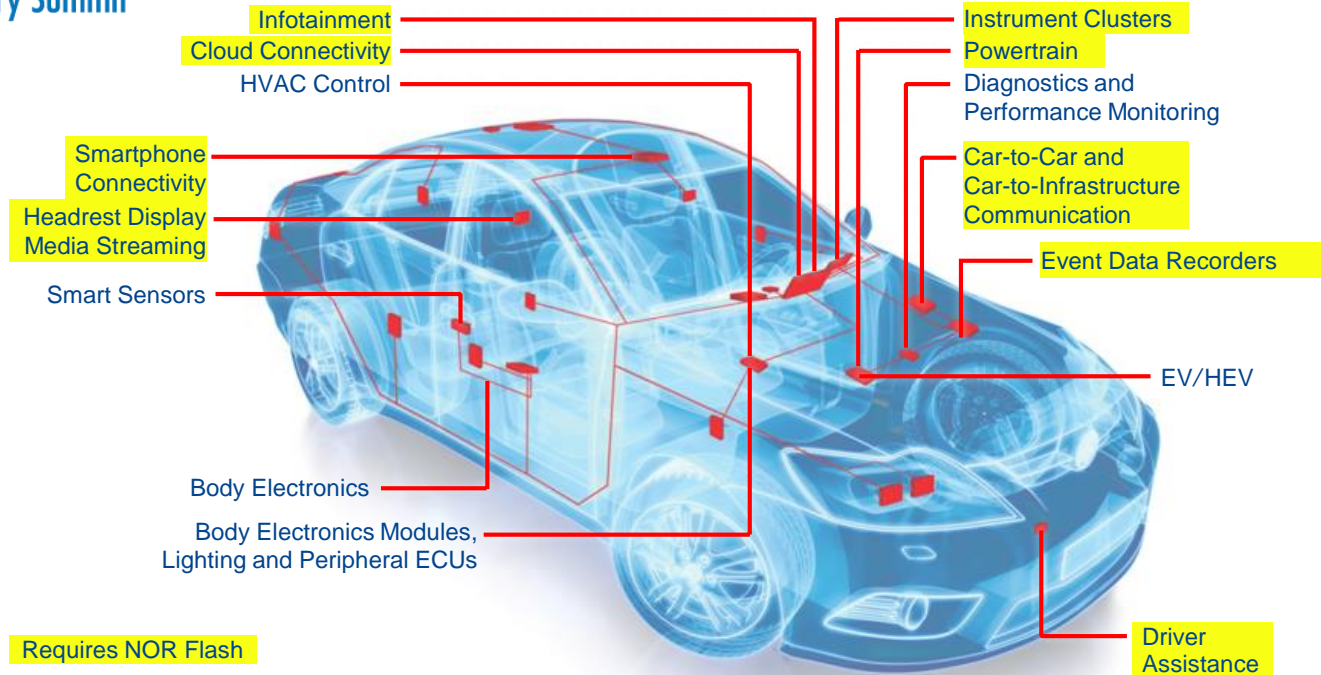
512Mb 1.8V
NOR Flash



NOR Flash stores the most critical code and parameters to start and operate the system



The Car Is Your New Driver



A modern car has already 170+ Sensors, 85+ Control Units, and 150+ Actuators

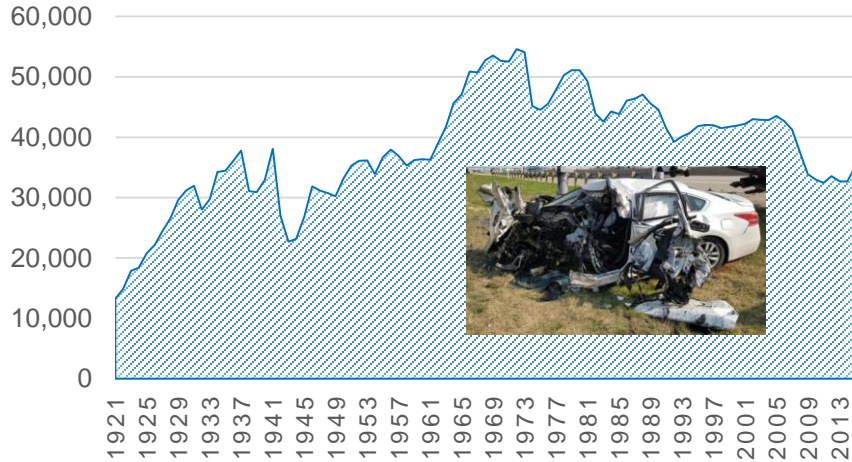


Can You Trust Your New Driver?

Is your new driver safer than humans?

1.25 million people die each year in traffic accidents

TRAFFIC DEATHS IN US PER YEAR



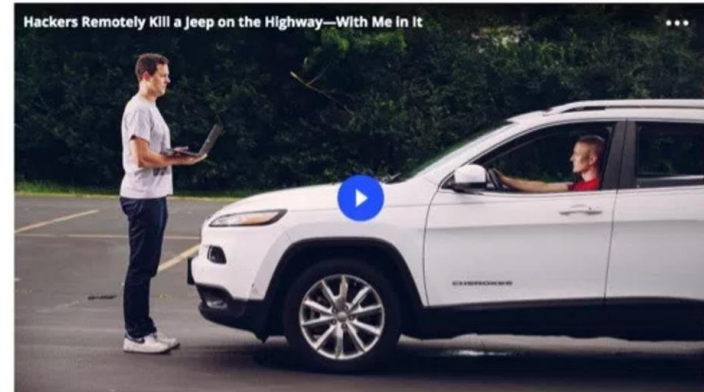
Functional Safety

Is your new driver sober or

driving under the influence...of hackers

ANDY GREENBERG SECURITY 07.21.15 6:00 AM

HACKERS REMOTELY KILL A JEEP ON THE HIGHWAY—WITH ME IN IT



Security

Our Responsibility: Assure highest functional safety and security for the most critical code and parameters



Automotive NOR Flash Requirements

Read/Write Performance

HyperBus™ 2.0
Instant On, XIP

Endurance

EnduraFlex™
>1 Million cycles

Functional Safety (ASIL)

ECC, CRC, Safe-Boot,
Advanced Diagnostics

Automotive NOR Flash

Retention

EnduraFlex™
>25 years

Security

Integrated Secure Processor

Automotive Grade

AEC-Q100, IATF 16949
Zero Defect Quality



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Thank You

