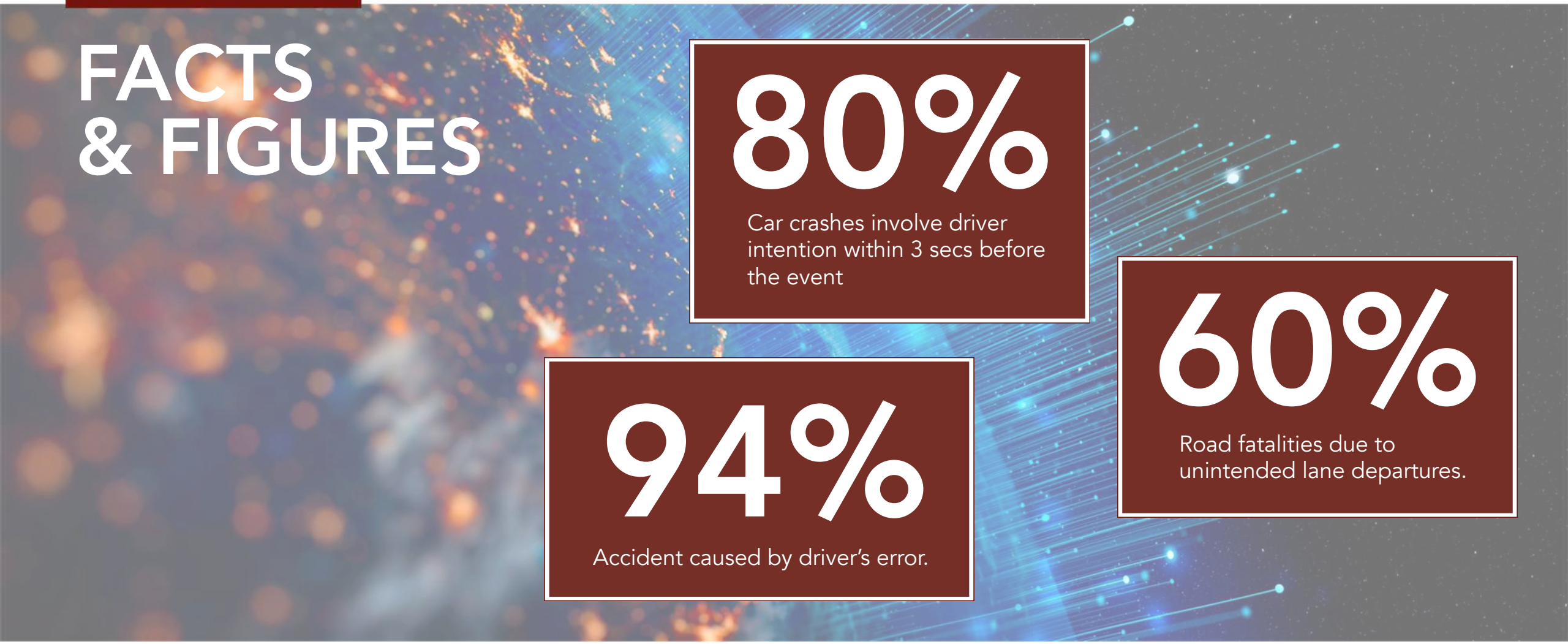
GBS
singapore

ACTIVE SOLUTION

OUR FINDINGS

FACTS & FIGURES



80%

Car crashes involve driver intention within 3 secs before the event

94%

Accident caused by driver's error.

60%

Road fatalities due to unintended lane departures.

FACTS & FIGURES

With ADAS, we found that:

43%

Reduce in of lane departure warnings

57%

Reduction of foreword collision warning

71%

Reduction in headway monitoring warnings

DIRECT & INDIRECT COST

Direct Costs

- Property damage
- Mobile vehicle repair & replacement
- Healthcare costs
- Municipality/utility fees for damage to public property
- Insurance liability claims and settlements
- Increase in insurance premiums

Indirect Costs

- Time spent by supervisor/manager to coordinate and make special arrangements
- Overtime pay (cover missing worker's workload)
- Employee replacement
- Failure to meet customer's requirements
- Bad publicity and business loss
- Administrative costs (documentation of injuries, treatment, absences, crash investigation)

DAMAGE COSTS

US$518B
Global damage costs from road accidents

US$32000
Average cost per accident

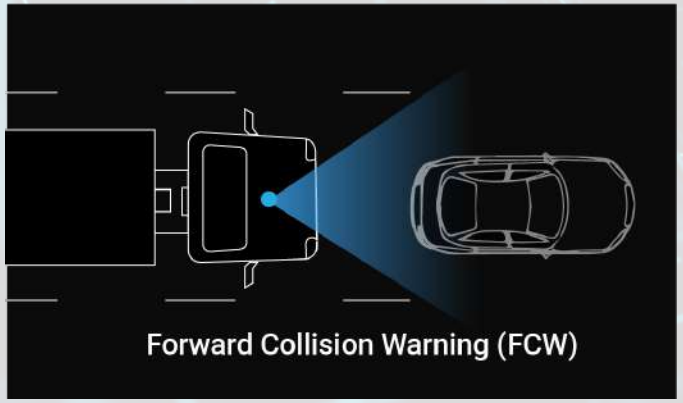
US$50-60M
Costs due to harmful driving

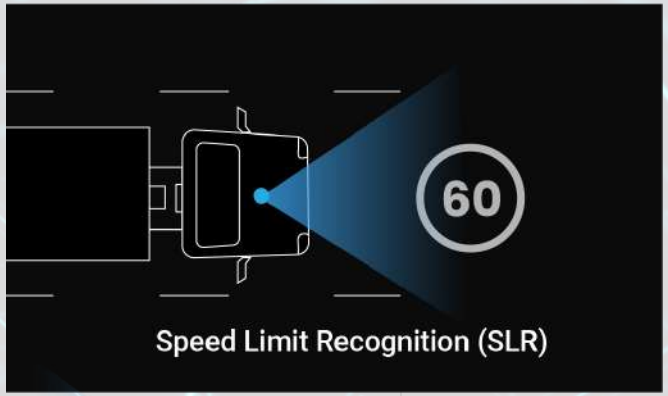
US$32000
Additional cost per vehicle Insurance premium fleet owners are paying due to history of accidents

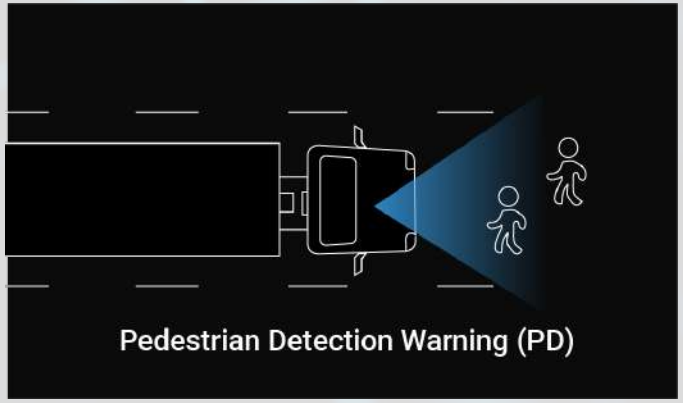
5 AIMS OF AUTOMOTIVE VISION DRIVE SYSTEM

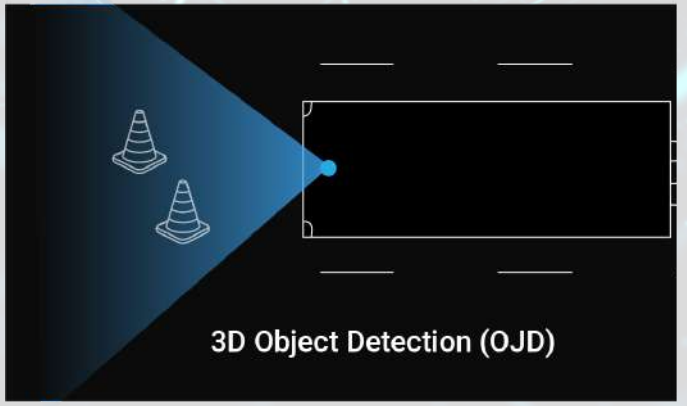
1. Increase driver's awareness to road situations
2. Reduce cost of ownership
3. Increase cost efficiency
4. Avoid potentially dangerous situations
5. Educate drivers on safe driving

6 MAIN FUNCTIONS OF AUTOMOTIVE VISION DRIVE SYSTEM







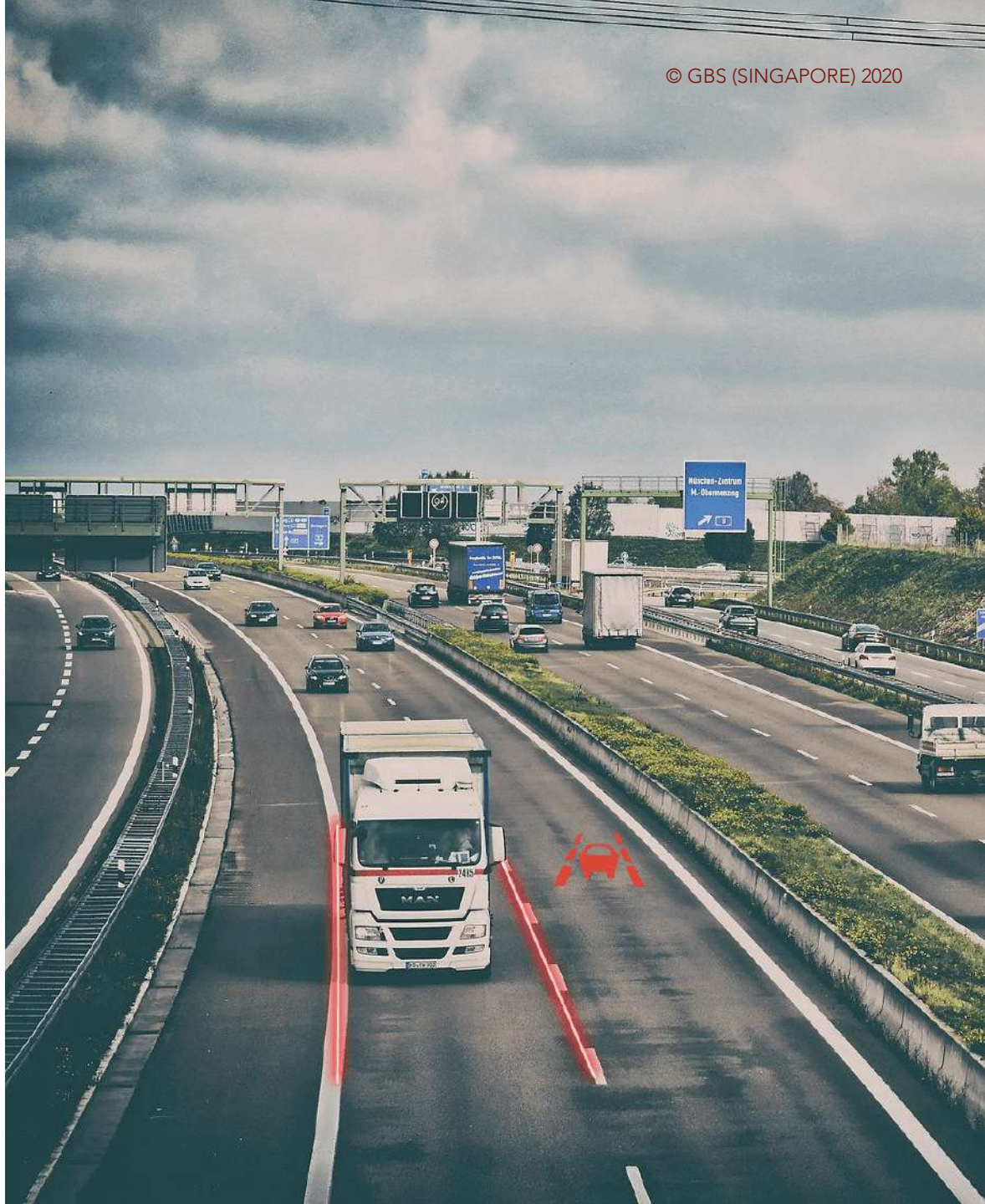


LAND DEPARTURE WARNING (LDW)

Generally, more than 25% of fatal accidents involve drivers falling asleep at the wheel. 60% of highway fatalities were resulted from unintended lane departures.

Fatigued drivers, travelling at high speeds, are likely to skewer off their lane; resulting in crash fatalities and incurring collateral damage.

Our system accurately identifies the borders of the lane to alert the driver via visual and audio signals when the driver veers of their path without signaling.

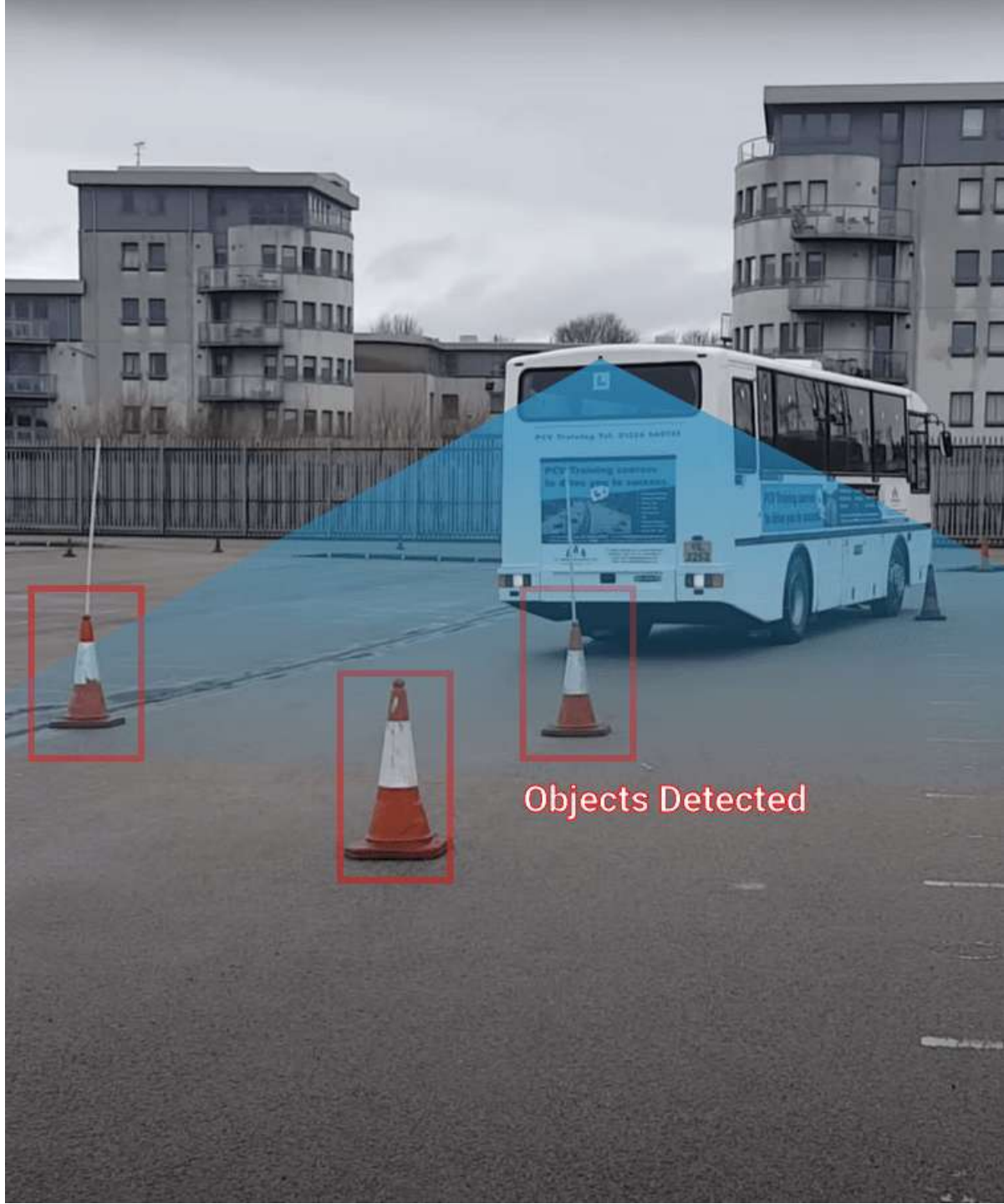


OBJECT DETECTION (OJD) ⚠

Trucks, buses and other commercial vehicles are designed with a larger exterior to perform heavy-duty tasks. When reversing, objects/structures (e.g. lamp posts, poles, cones) can be easily overlooked by the driver due to the limited vision. Thus, increasing the likelihood of collision.

Not only can OJD detect objects, it can differentiate between human, fixed structures and stationary objects with precision.

An audio alert is activated whenever the vehicle comes into proximity with stationary objects detected within the camera's field of vision.

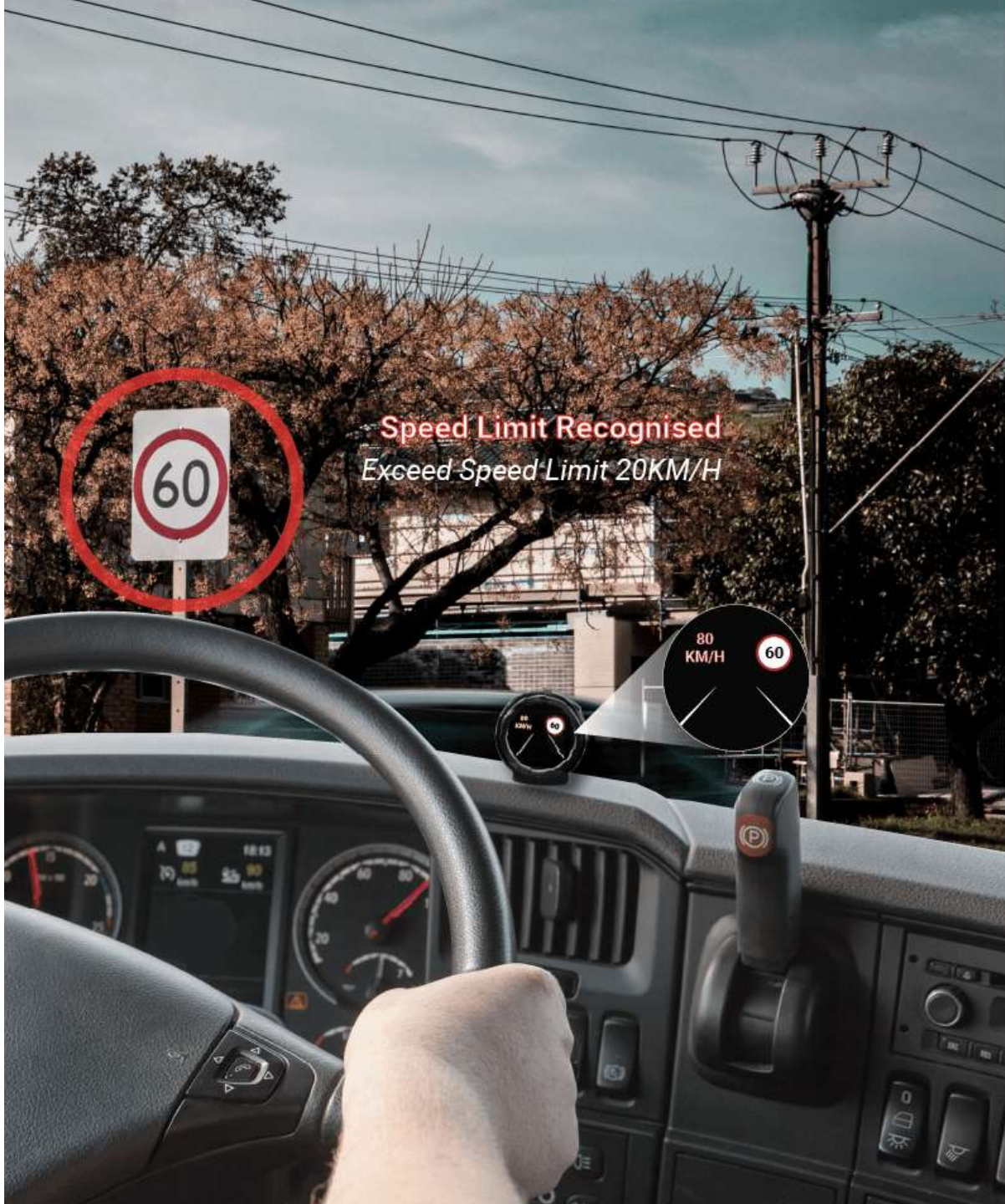


SPEED LIMIT RECOGNITION (SLR)

Speeding related violations is the one of the main causes for vehicle collisions, severe injuries and death in the world.

To mitigate speeding related accidents, our system accurately identifies the speed limit in each geographical zone by scanning for the nearest speed limit signage.

When the driver exceeds the speed limit, a visual and audio indicator will prompt him to slow down.



FORWARD COLLISION WARNING (FCW)

Many drivers underestimate the distance and time taken to decelerate to prevent a collision. 80% of rear end crashes can be avoided with a forward collision warning system.

Our system detects an imminent collision by considering the relative speed of the driver's vehicle and that of the vehicle ahead.

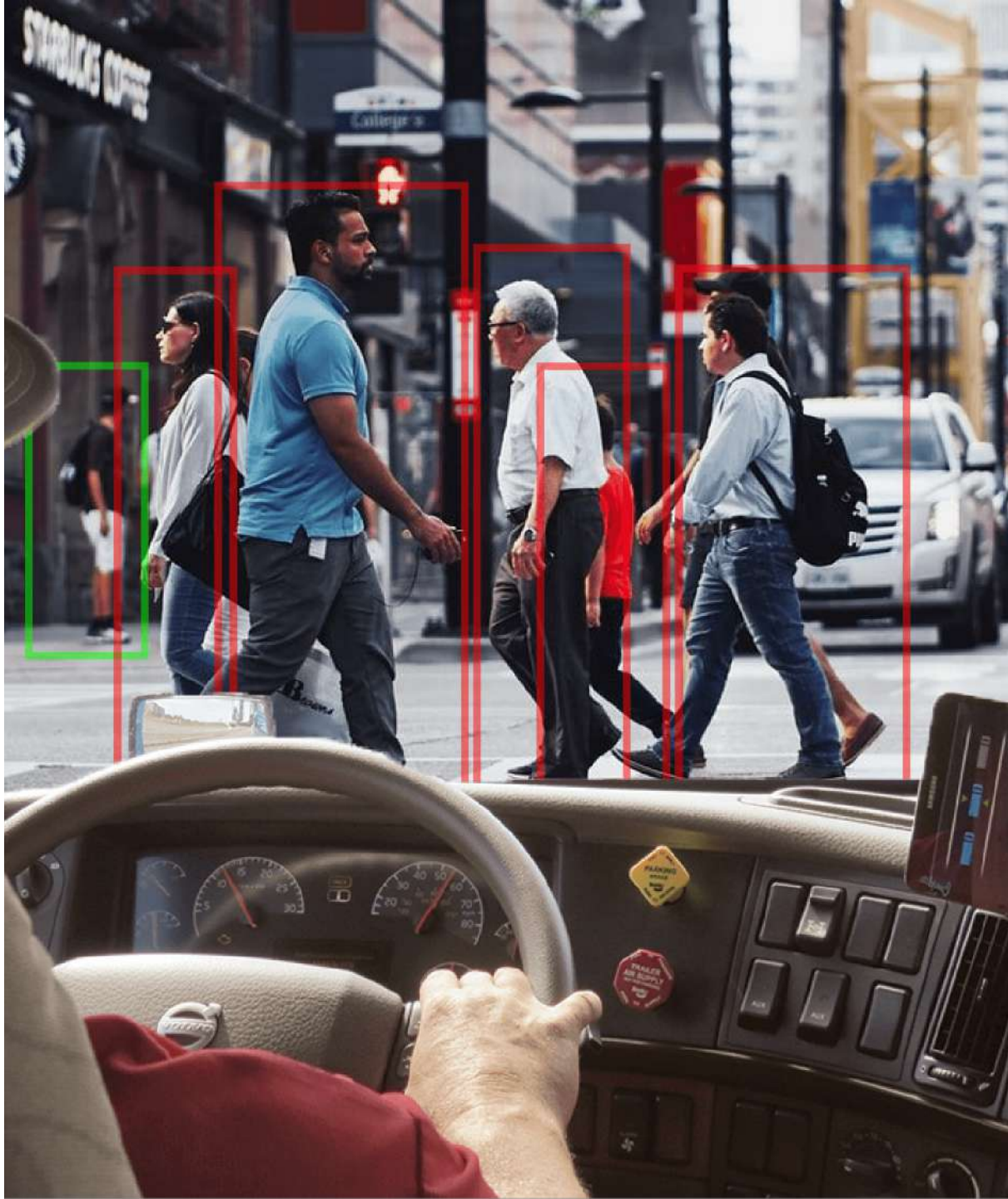
It sends a warning alert to the driver up to four seconds before collision; giving the driver enough time to respond and decelerate.

PEDESTRIAN DETECTION WARNING (PCW)

22% of pedestrians account for the road fatalities. For specialty vehicles drivers, their seats are positioned at an elevated height. Alongside a bigger hood, drivers may not see a pedestrian clearly especially in urban cities where these vehicles must maneuver through crowded areas.

Our solution identifies the pedestrians and sends a visual and audio warning to the driver when the pedestrian is less than four seconds away from collision based on the driver's speed.

Another warning will be sounded if the driver does not take corrective action. A critical alert is displayed if a collision is expected within two seconds.



BLIND SPOT DETECTION (BSD)

Blind spots are the most common dangers for drivers when they are reversing, turning or maneuvering. Particularly for heavy vehicles, their sheer size creates larger blind spots that lead to higher chances of collision with cyclists, motorists or pedestrians.

Our solutions resolves the issue by extending the detection range with cameras placed strategically around the vehicle.

A warning alert is sounded when a pedestrian/cyclist is identified within the detection zone. Drivers will be more cautious especially during lane filtering or turning.

AMV 1

Front Camera Configuration

AI Front Camera

2.5'' display

Control Box

ACCESSORIES

3P Power Cable

Contactless CAN Reader

16P Connector to MDAS Main Unit and PCI Box

CANBUS Cable

Available Functions:

AMV 1+

Front Camera Configuration with DSM (Driver Status Monitoring)

AI-Driven Duo-Dash Camera

ACCESSORIES

12P Power Connector

12P Connector

12P Power Connector

OPTIONAL

7'' Display
(WIFI/ Bluetooth Connection)

Available Functions:

AMV 2

Front + Rear Camera Configuration

Processor

Front Camera

Rear Camera

Buzzer & LED Indicator

Available Functions (Front Camera):

Available Functions (Rear Camera):

ACCESSORIES

G2 Camera Cable

G2 Power Cable

Camera Extension

GPS

4G Antenna

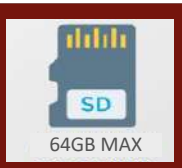
OPTIONAL

7'' Display

4CH DVR

- *HD Recording*
- *Max Storage 2TB*

Magnetic Base



AMV 2+

Front + Rear Camera Configuration with DSM (Driver Status Monitoring)

Processor

Front & DSM Camera

Rear Camera

Buzzer & LED Indicator

Available Functions (Front Camera):

Available Functions (Rear Camera):

ACCESSORIES

G2 Camera Cable

G2 Power Cable

Camera Extension

GPS

4G Antenna

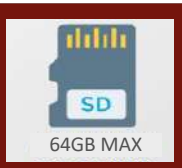
OPTIONAL

7'' Display

Magnetic Base

4CH DVR

- *HD Recording*
- *Max Storage 2TB*



AMV 2+

Front + Rear Camera Configuration with DSM (Driver Status Monitoring)

(Forklift Solution)

M500 Main Unit

7'' Display

Front Camera

DSM Camera

Rear Camera

ACCESSORIES

Power Cable

WIFI/ GPS/ 4G

Speaker

Display Bracket

OPTIONAL

Magnetic Base

Available Functions:

AMV 2

Side Camera Configuration

Processor

Side Camera x 2

Buzzer &
LED Indicator

Available Functions:

ACCESSORIES

G2 Camera Cable

G2 Power Cable

Camera Extension

GPS

4G Antenna

OPTIONAL

7'' Display

4CH DVR

Magnetic Base

- *HD Recording*
- *Max Storage 2TB*

AMV 2+

Side Camera Configuration with DSM (Driver Status Monitoring)

Processor

Side Camera x 2

DSM Camera

Buzzer &
LED Indicator

Available Functions:

ACCESSORIES

G2 Camera Cable

G2 Power Cable

Camera Extension

GPS

4G Antenna

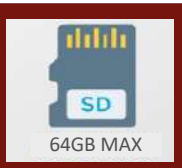
OPTIONAL

7'' Display

4CH DVR

Magnetic Base

- *HD Recording*
- *Max Storage 2TB*



AMV 2

Duo Rear Camera Configuration

Processor

Buzzer &
LED Indicator

Duo Rear Camera

Available Functions:

ACCESSORIES

G2 Camera Cable

G2 Power Cable

Camera Extension

4G Antenna

GPS

OPTIONAL

Solution 1:

7'' Display

Magnetic
Base

4CH DVR

- *HD Recording*
- *Max Storage 2TB*

Solution 2:

Fork Camera

Integrated 7'' Wireless
Display with DVR

- *HD Recording*
- *Max Storage 128GB*

Portable Battery

Charger

HD Transmitter

Magnetic Base

AMV 2+

Duo Rear Camera Configuration with DSM (Driver Status Monitoring)

Processor

Buzzer &
LED Indicator

Duo Rear Camera

DSM Camera

ACCESSORIES

G2 Camera Cable

G2 Power Cable

Camera Extension

4G Antenna

GPS

OPTIONAL

Solution 1:

7'' Display

Magnetic
Base

4CH DVR

- *HD Recording*
- *Max Storage 2TB*

Solution 2:

Fork Camera

Integrated 7'' Wireless
Display with DVR

- *HD Recording*
- *Max Storage 128GB*

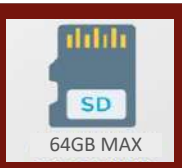
Portable Battery

Charger

HD Transmitter

Magnetic Base

Available Functions:



AMV 2W

Front + Wireless Rear Camera Configuration

Processor

Front Camera

Buzzer &
LED Indicator

Wireless Rear Camera
(Attached with license plate)

Available Functions
(Front Camera):

Available Functions
(Rear Camera):

ACCESSORIES

G2 Camera Cable

G2 Power Cable

GPS

Camera Extension

4G Antenna

12V Portable Battery

Battery Charger

Transmitter

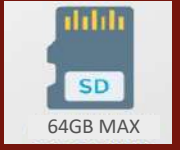
OPTIONAL

7'' Display

4CH DVR

- *HD Recording*
- *Max Storage 2TB*

Magnetic Base



AMV 4

Front + Rear + Side Camera Configuration

Processor x 2

Front Camera

Side Camera x 2

Rear Camera

Buzzer &
LED Indicator

ACCESSORIES

G2 Camera Cable

G2 Power Cable

GPS

Camera Extension

4G Antenna

OPTIONAL

7" Display

4CH DVR

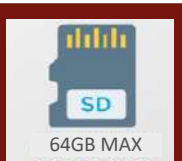
- *HD Recording*
- *Max Storage 2TB*

Magnetic Base

Available Functions (Front Camera):

Available Functions
(Rear Camera):

Available Functions
(Side Camera):



AMV 4+

Front + Rear + Side Camera Configuration with DSM (Driver Status Monitoring) (*Solution 1*)

Processor x 2

Front & DSM Camera

Side Camera x 2

Rear Camera

Buzzer & LED Indicator

Available Functions (Front Camera):

Available Functions (Rear Camera):

Available Functions (Side Camera):

ACCESSORIES

G2 Camera Cable

G2 Power Cable

GPS

Camera Extension

4G Antenna

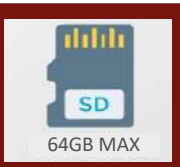
OPTIONAL

7" Display

4CH DVR

Magnetic Base

- *HD Recording*
- *Max Storage 2TB*



AMV 4+

Front + Rear + Side Camera Configuration with DSM (Driver Status Monitoring)*(Solution 2)*

AI-Driven Duo-Dash Camera

- *HD Recording*
- *Max Storage 516GB*

Processor

Buzzer & LED Indicator

Side Camera x 2

Rear Camera

Available Functions (Front Camera):

Available Functions (Rear Camera):

Available Functions (Side Camera):

ACCESSORIES

OPTIONAL

- *HD Recording*
- *Max Storage 2TB*

QUESTIONS?

Let us know!

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