BEAMAGINE

L3CAM

SAFE NAVIGATION FOR ANY VEHICLE

AT A GLANCE

■ Integrated camera system
composed by 3 imaging modes:

• Patented high-resolution and solid-state 3D LIDAR
• CCTV camera
• Thermal camera

■ In-house calibrated embedded data fusion

■ Embedded AI perception software for
human detection and tracking

■ Designed to eliminate false alarms
through multimodal image analysis

■ Stable in all weather conditions
(rain, snow, fog, dust, and wind)
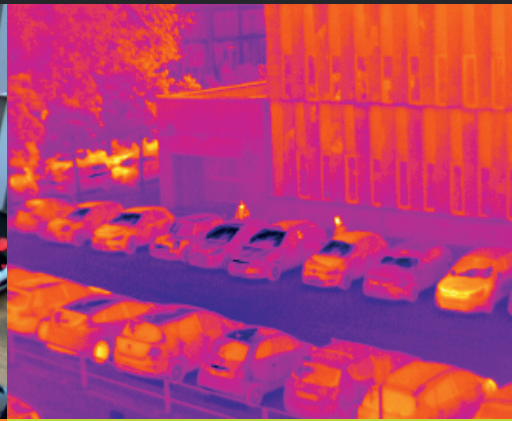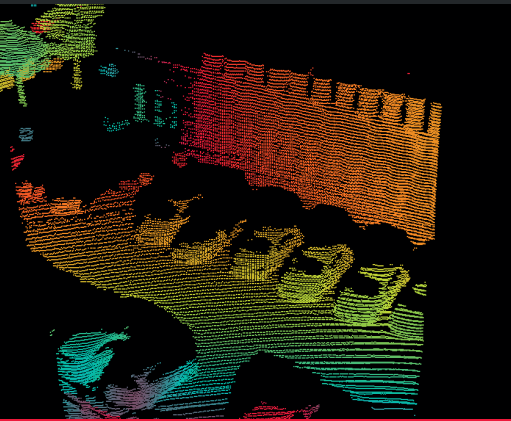
WHY 3D LIDAR?

■ Stable in complex environments with people, buildings and vehicles

■ Fully compatible with metallic and small cross-section objects

■ Insensitive to lighting conditions

■ Uses geometrical information to identify objects according to its size at any distance

■ This solves the aspect ratio issues that are typical in 2D imaging

WHY MULTICAMERA FUSION?

■ AI Perception eliminates false alarms thanks to multimodal imaging

■ Redundancy guarantees unprecedented robustness and reliability

■ Complementary imaging technologies make the system reliable in all scenarios regardless of object type, size, material or weather conditions

CONGRUENT DATA FUSION

🔴 L3CAM is based on an integrated and early data fusion approach. This makes the camera combination result fully congruent and boosts performance at a later AI perception software stage.

🔴 Early data fusion overcomes issues related to the object level approach:

• No parallax issues
• Safer and more reliable
• Higher robustness at later AI stage
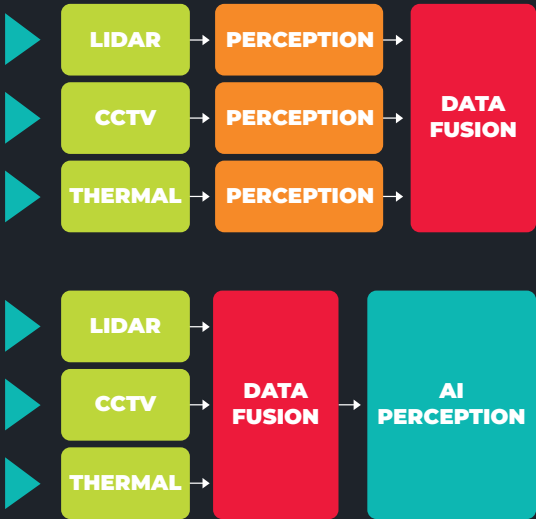
	DETACHED	INTEGRATED
	The cameras are placed in different locations	**Cameras are integrated into the same housing**
Mechanical alignment	Made by the user	Made in house
Calibration	Made by the user	Made in house
Software integration	Complex, made by the user	Made in house
Date fusion	Made by the user	Made in house
Misalignments	Very likely	No
Parallax error	Yes	No
Recalibrations	Yes	No
Installation cost	High	Minimum

EMBEDDED AI PERCEPTION

🔹 Unprecedented stability and robustness

🔹 Neural network pretrained to detect humans

🔹 Can be trained to detect other types of objects under customer demand

🔹 Close to zero false alarm rate in any environment

🔹 Embedded inside the sensor casing

🔹 Ultralow latency: real-time execution boosted by multicore GPUs

🔹 **Output data types:**

• Alarm messages
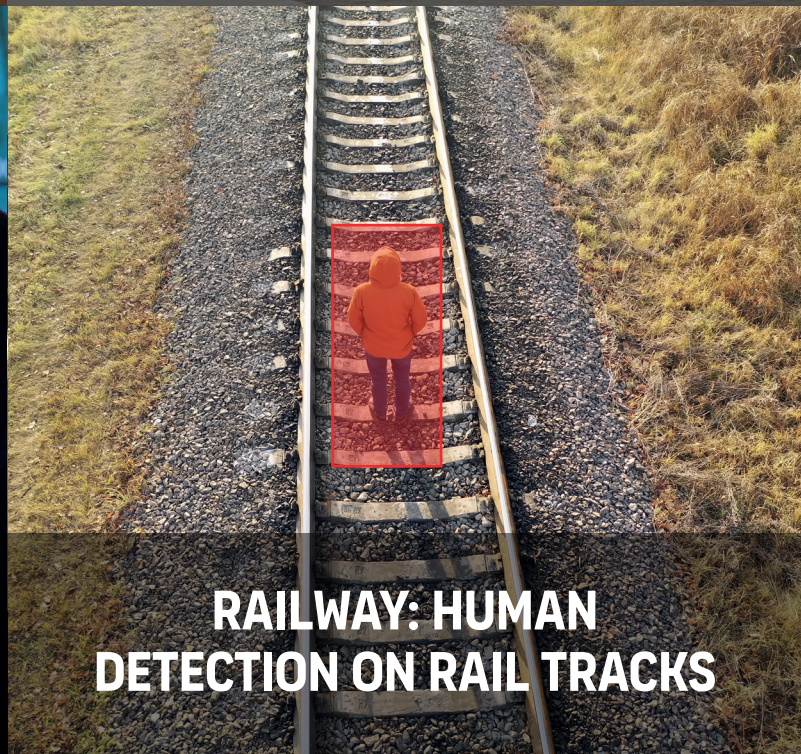
• Real-time images from any sensor
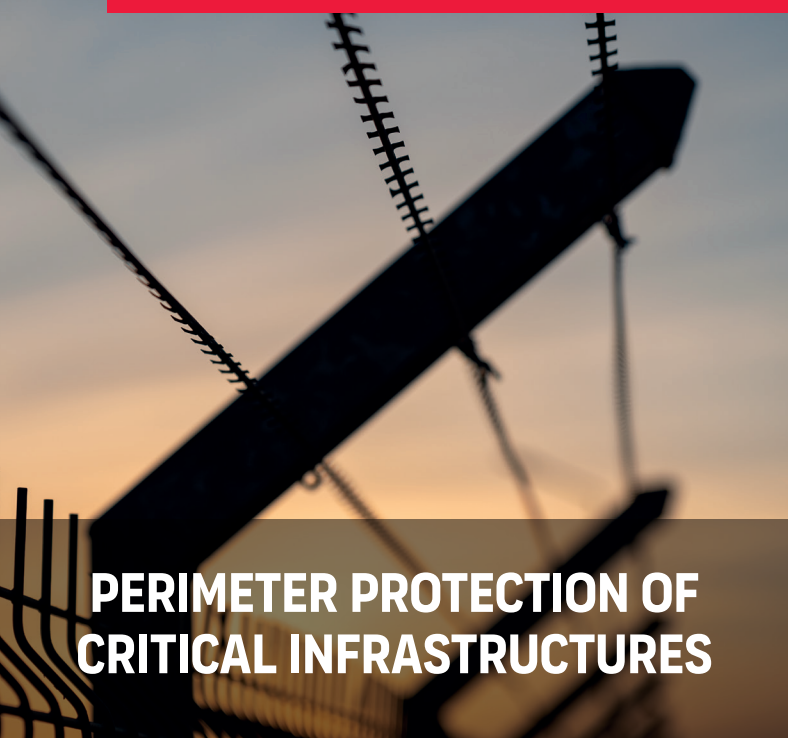
PERIMETER PROTECTION OF CRITICAL INFRASTRUCTURES

ACCESS CONTROL

UNATTENDED CONTROL CENTERS

RAILWAY: HUMAN DETECTION ON RAIL TRACKS

CROWD ANALYTICS

ON-SITE SAFETY

ABOUT US

At Beamagine, we are committed to the development of LIDAR and imaging systems to the highest possible industry standards. Due to the nature of our highly technological products, this encompasses the combination of high-tech expertise in optomechanics, electronics, and software, all of which requires careful prototyping and industrialization.

BEAMAGINE

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