

GUSTAV MINUSTRIAL APPLICATIONS



ABOUT

GUSTAV Mini GMSL serie was developed to operate in the smallest environments. Whether it's robot control, machinery, or in-vehicle camera control, the goal of the GUSTAV Mini GSML was to save space while maintaining the highest standards. The system delivers up to 100 TOPS, with up to 1 till 4 terabytes of SSD. It is ideal for specific computer vision tasks where cable security and cameras with high IP protection need to be connected. However, standard connections such as network interfaces, USB2, and a UART for debugging without the need for an HDMI or external monitor are also integrated.

This allows for fast troubleshooting with any monitor. Through the REBOTNIX SDK, you receive a complete system with GMSL drivers. Currently, the GMSL2 system supports the following cameras: D3 Embedded, Stereolabs ZedX, ECON20, ECON21 and TIERIV Additional camera integrations can be supported.



FLAWLESS CAMERA INTEGRATION

The GMSL standard is used, among other things, in the automotive sector. The reliability of the cameras and the ability to use up to 15 meters of cable make GMSL the optimal choice for deployment.

GUSTAV Mini GMSL integration is a ready-to-go package, where all camera drivers are optimally tuned to the hardware. This requires close collaboration with leading camera manufacturers, with REBOTNIX handling the porting of drivers to the latest NVIDIA Jetpack themselves.



GUSTAV MINI SUPPORTS A WIDE RANGE OF GMSL CAMERAS







StereoLabs* D3 Embedded TIER IV









GUSTAV MINI - 2 CHANNEL GMSL

JETSON			
PROPERTY	INFO	INFO	
SKU	RB_GM2CHGMSLO16 (16 GB)	RB_GM2CHGMSLO08 (8 GB)	
GPU	ORIN NX 8GB / 16GB 8GB (70 TOPS) / 16GB (100 TOPS)		
GMSL	2 x GMSL 2 Camera inputs	GMSL 2 STANDARD	
NETWORK	1 x 1000 MBIT	M12 Connector	
USB	1 x 2.0 USB -		
OPERATING	-20°C to +88°C -4°F bis 190,4°F		
CASE	FULL ALUMINIUM BLOCK	FOR PASSIVE AND ACTIVE COOLING	
DISPLAY	HEADLESS {NO DISPLAY OR HDMI)	UART MINICOM SERVICE BOX FOR DEBUGGING AND CONFIGURATION	
POWERING	+9V to +60V	DC (+12V to +48V DC Nom.)	
DIGITAL IO	DIO 1 DIO 2	-	
WEIGHT	540g	WITHOUT POWER SUPPLY UNIT	
SECURITY	INTERNAL HARDWARE CRYPTO CHIP	INCLUDED	
STORAGE	M2 SSD (INTERNAL)	1 TB SSD (internal)	

PROPERT

D3 EMBEDDE

STEREOLAB

TIER IV

ECON

*ZED PLEASE NOTE THAT WE IMPLEMENT THE V4L AND ARGUS CAM THAT ENABLES BOTH CAM. CAUSE GUSTAV MINI IS A HEADLESS SYSTEM AND STEREOLABS REQUIRES AN ALWAYS HDMI OR SCREEN CONNECTED, YOU CANT USE THE API FROM THE ZEDX SDK.

PLEASE NOTE THAT YOU CAN CONNECT ONLY ONE TYPE OF GMSL ON THE 2 PORTS. FOR EXAMPLE 2 X D3 CAMERAS ON GMSL PORT 1 AND 2.



GMSL CAMERA SUPPORT

ſΥ	SPECIFICATION	INFO
DED	GMSL	AR0234
BS	ZEDX* SERIE	ZEDX & ZEDX MINI
	GMSL	C1 & C2
	GMSL	SturdeCAM20

D3 Embedded StereoLabs* TIER IV



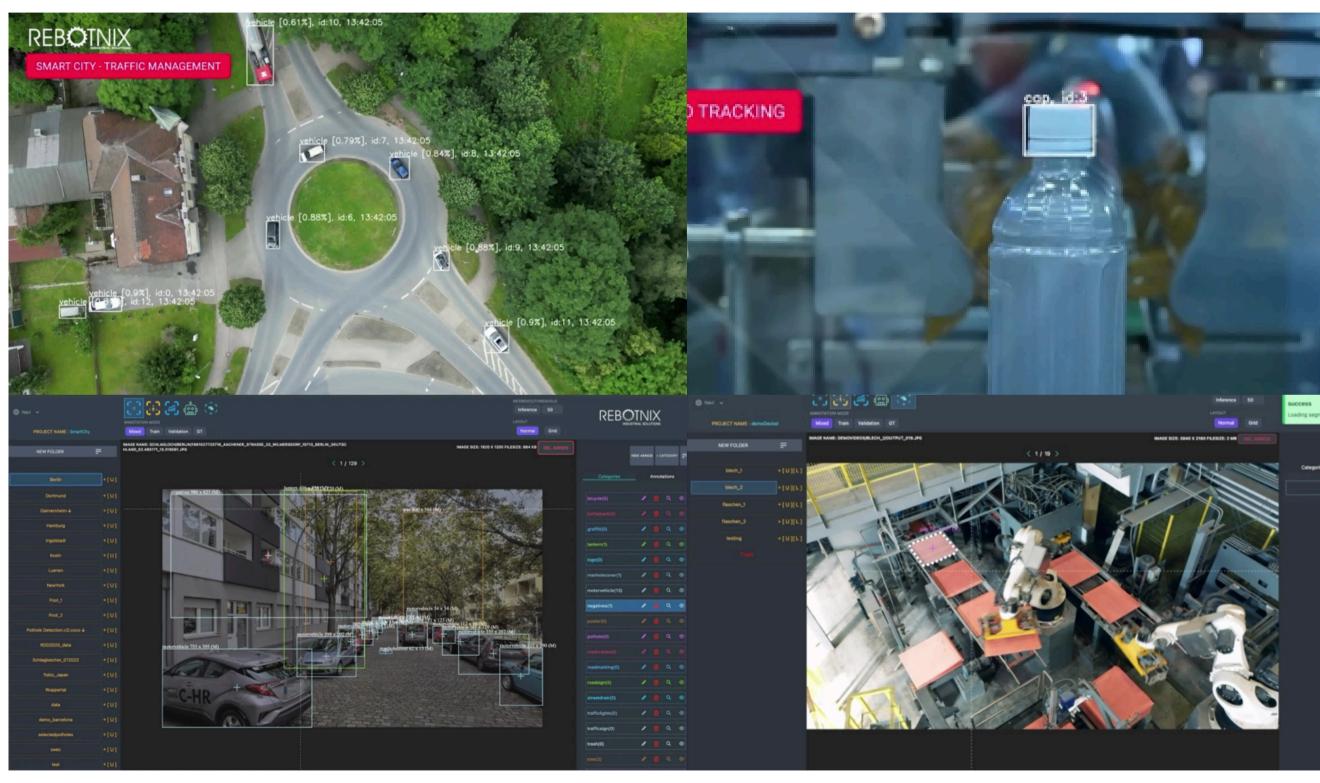


APPLLICATIONS

- Smart City: traffic control, infrastructure monitoring.
- Manufacturing: automation, process monitoring.
- Drones & UAVs: autonomous navigation, real-time data processing.
- Robotics: AI-driven control, sensor integration.
- Edge AI: real-time analytics at the device level.
- Security: surveillance, facial recognition, anomaly detection.
- Environmental Monitoring: air quality, weather data collection.
- Autonomous Transport Vehicles: obstacle detection, route planning for transport and delivery systems.
- Communication: satellite communication (e.g., Starlink), network optimization, real-time data transfer.

POWERING SMART TECHNOLOGIES ACROSS INDUSTRIES

The GUSTAV Mini, a compact embedded computer powered by NVIDIA Jetson GPU technology, offers versatile applications across a wide range of industries, from smart cities to advanced robotics, thanks to its high-performance capabilities in real-time data processing and AI integration.





AI MODELS (OPTIONAL)

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OVERVIEW OF SOME OF OUR MODELS

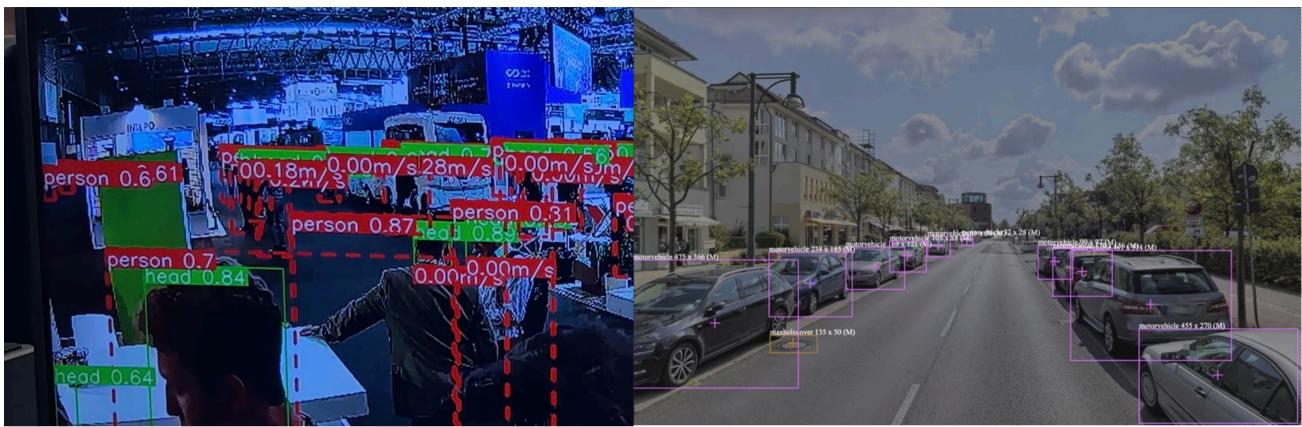
- PERSON HEAD AND SPEED ESTIMATION
- VIDEORECORDING DVR
- MOTORVERHICLE DETECTION
- POTHOLE STREET CONDITIONS
- GRAFITI DETECTION
- CUSTOM MODEL DESIGN



REBOTNIX TRAINS YOUR AI MODEL IN-HOUSE.

If you want to train or own a custom model using your data, we can provide data collection, annotation, and model training services.

THE TRAINED MODEL THE MODELS DO NOT NEED ANY CLOUD CONNECTION. AND BE DIRECTLY EXECUTED ON THE GUSTAV MINI.



PERSON DETECTION | HEAD AND SPEED ESTIMATIONS



POTHOLE, STREET CONDITIONS

MOTORVEHICLE | CARS AND TRUCKS, MOTORBIKES

GRAFITI

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• LICENSE PLATES | RECOGNITION





LICENSE PLATES | LICENSE RECOGNITION ALPR







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