

# Automotive Engineering Projekt Description



# **Project Description**



## Requirements

#### Please describe in a few sentences your use case by referring to following topics:

- · Environment: car, truck, bus, test bench, facility
- Purpose: development, pre-/post-SOP, commercial
- Constraints: power supply, vehicle interfaces, connectivity, cloud support, security, mounting position
- Goal
- Timeline

Please fill in the points below as detailed as possible to enable the best possible understanding of your requirements and expectations. If any points are unclear, these can also be clarified in the further course.

Hardware	
Power Supply	Vehicle Interfaces
🔲 OBD-II 🛛 🔲 Breakout-Box/Banana connector	OBD-II
Physical ignition available	☐ FMS/J1939
WakeUp-Setup	🔲 CAN (Amount:) 🔲 CAN-FD (Amount:)
	FlexRay
CAN-Traffic	Automotive Ethernet / BroadR-Reach
☐ Modem	Ethernet

Logging	
Protocols	Туре
🗋 CAN/CAN-FD 🛄 FMS 🛄 J1939	Given Full-Trace
FlexRay	Continuous
CAN Calibration Protocol (CCP)	Triggered
Universal Measurement & Calibration Protocol (XCP)	Format
CAN/CAN-FD	MF4
FlexRay	
Ethernet	ASC

# Diagnostics

## Protocols

- UDS (ISO 14229)
- ISO-TP (ISO 15765 CAN/CAN-FD, FlexRay)
- DoIP (ISO 13400)
- OBD (ISO 15031)

#### Format



Human-readable

Streaming	
Endpoint	Direction
Native MQTT Broker	☐ Flea 4+ → Cloud
Microsoft Azure	$\Box Cloud \rightarrow Flea 4+$
🔲 IoT Hub	
Event Hub	

Rapid Prototyping	
Level	Interaction
Configurable	Access to onboard services
Low-Code Editor	RemoteLED-Button
Lua Scripting	Remote Validation on Flea 4+*

# Cloud Support

Microsoft Azure	Pantaris (ETAS GmbH)
Amazon AWS*	Custom
Bosch IoT Insights	

## Storage

CarMedialab's cloud

Customer cloud

Public cloud

Mobile Data	
Customer SIM	Data Volume
Region	🔲 1 GB
	<b>2</b> GB
N. America	<b>G</b> 5 GB

\* planned for 2023

#### Sensors

- GPS
- Motion (accelerometer, gyroscope, compass)

# Analog inputsIP camera

### Connectivity

Mobile communication (≤ LTE) - obligatory

- Bluetooth
- 🔲 Wi-Fi

### Service Level

Consultance (Customer provides requirements/expectations, CarMedialab takes care)

Support (Customer requests assistance as needed)

## Additional Notes

If you have additional comments, constraints or aspects that have not been covered so far, please list them here:

### Feedback

How did you become aware of CarMedialab?



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