Javaneh
Modular Data
Knowledge Base Company
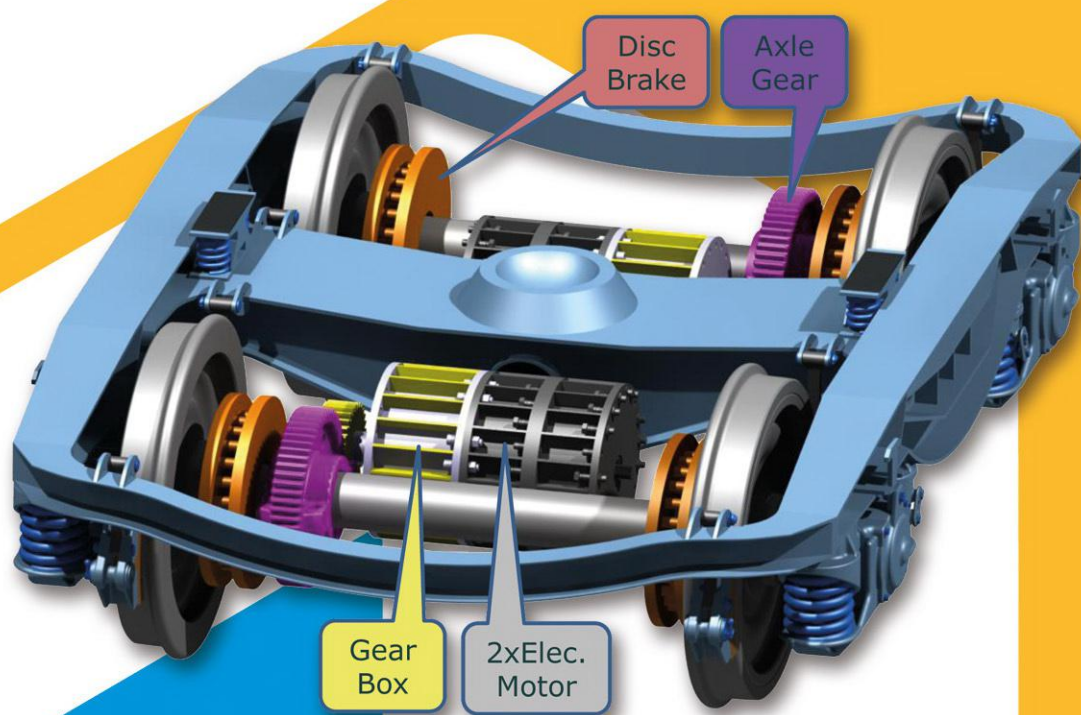
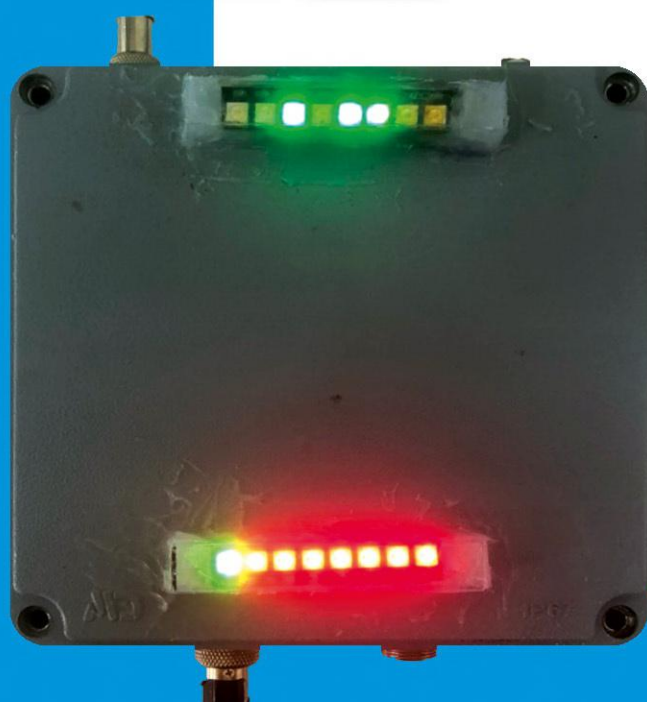*This "Leader Hardware" with "Linux Automotive Grade" Operating System structure has 3 models:*
Renesas R-car-H3
STM32H7 600MHz
STM32F2 120MHz
All these models use 24VDC as main power supply and installed in aluminium IP67 box.

Disc Brake
Axle Gear
Gear Box
2xElec. Motor

AUTOMOTIVE GRADE LINUX

Renesas R-Car

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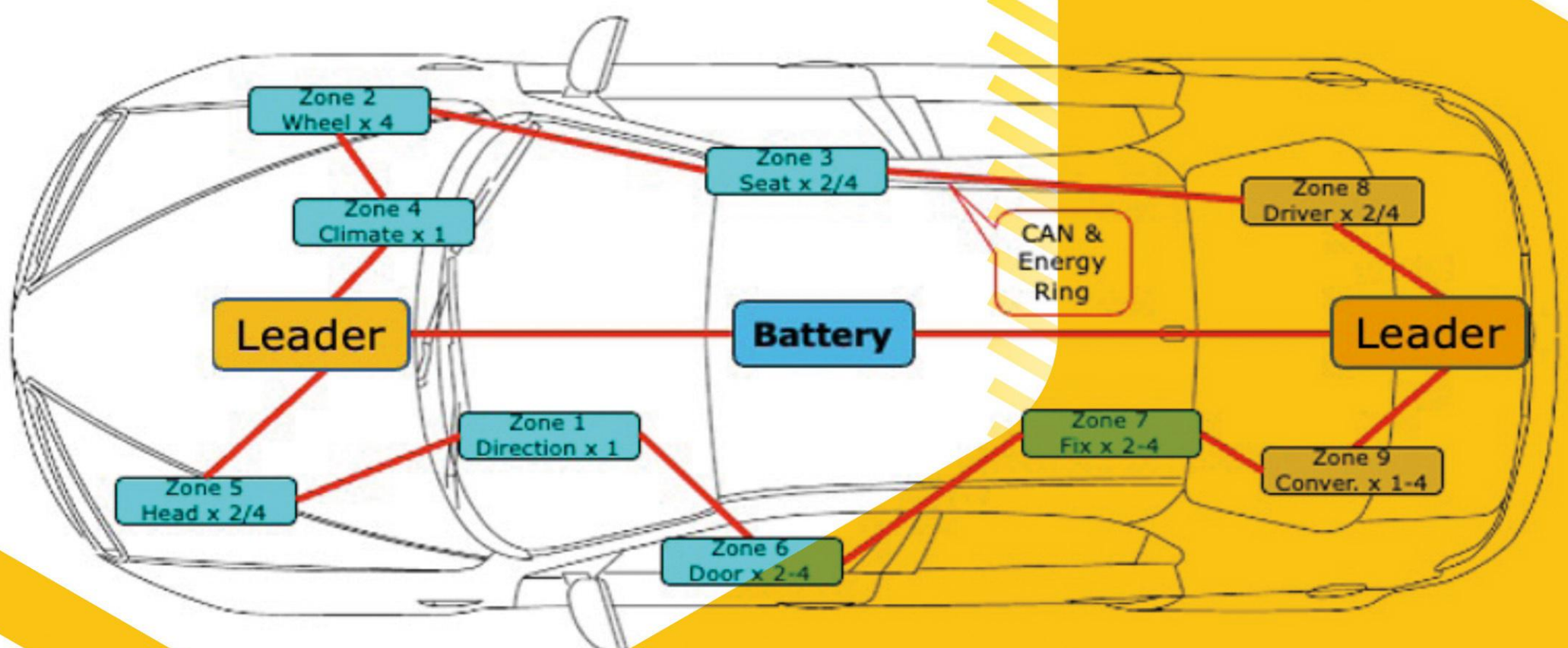
This "Leader Software" based on "Linux Automotive Grade" Operating System. The programming language is simply C++ for maximum response time and most popularity. The Sensor and Actuator Devices coding is very simple for easy addressing. The data transfer system based on CAN Bus ISO 11898.

AUTOMOTIVE GRADE LINUX

Zone 2
Wheel x 4

Zone 3
Seat x 2/4

Zone 8
Driver x 2/4

Zone 4
Climate x 1

CAN &
Energy
Ring

Leader

Battery

Leader

Zone 1
Direction x 1

Zone 7
Fix x 2-4

Zone 9
Conver. x 1-4

Zone 5
Head x 2/4

Zone 6
Door x 2-4

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"Sensor Follower" based on STM32 microcontroller with 7 types as shown in below table.
*These 7 types are classified as basic sensors output properties.*

- 24V
- CAN
- 5V
- Loop

For easy troubleshooting 4 LEDs show the working situation.

- Sensor 1
- Sensor 2
- ...
- Sensor 8

The 8 LEDs show the 8 sensors fault.

				Follower Types				
FF	**Type**	**Color**	**Range**	**Devices**	**UpC**	**DownC**	**Sample**	
01	Current	Cyan	4-20 mA	Sensor 4x3Pin	2xG4	2xG6	OilP, TiltA, HighC,HydF	
02	Millivolt	Maroon	30-300 mVDC	Sensor 4x4Pin	2xG4	2xG8	LoadcellW	
03	Ohm	Orange	50-400 Ω	Sensor 4x3Pin	2xG4	2xH6	OilT, AirH	
04	Button	Blue	0/1	Sensor 8x2Pin + 8Neg.	2xG4	2xG8	ProxiM, WheelR, DoorM	
05	Volt	Violet	0-10 VDC	Sensor 8x2Pin + 8Neg.	2xG4	4xH4	AirT, HighV, HeightD	
08	Encoder	Eggplant	-	Sensor 4	2xG4	G8	WireE, WheelE	
09	USB	Umber	USB/RS232/SPI	Sensor 4	2xG4	USB	TPMS, 3AxesG, ObstacleL	

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Leader Hardware
Leader Software
Sensor Follower

Actuator Follower

"Sensor Follower" based on STM32 microcontroller with 7 types as shown in below table.
These 7 types are classified as basic sensors output properties.
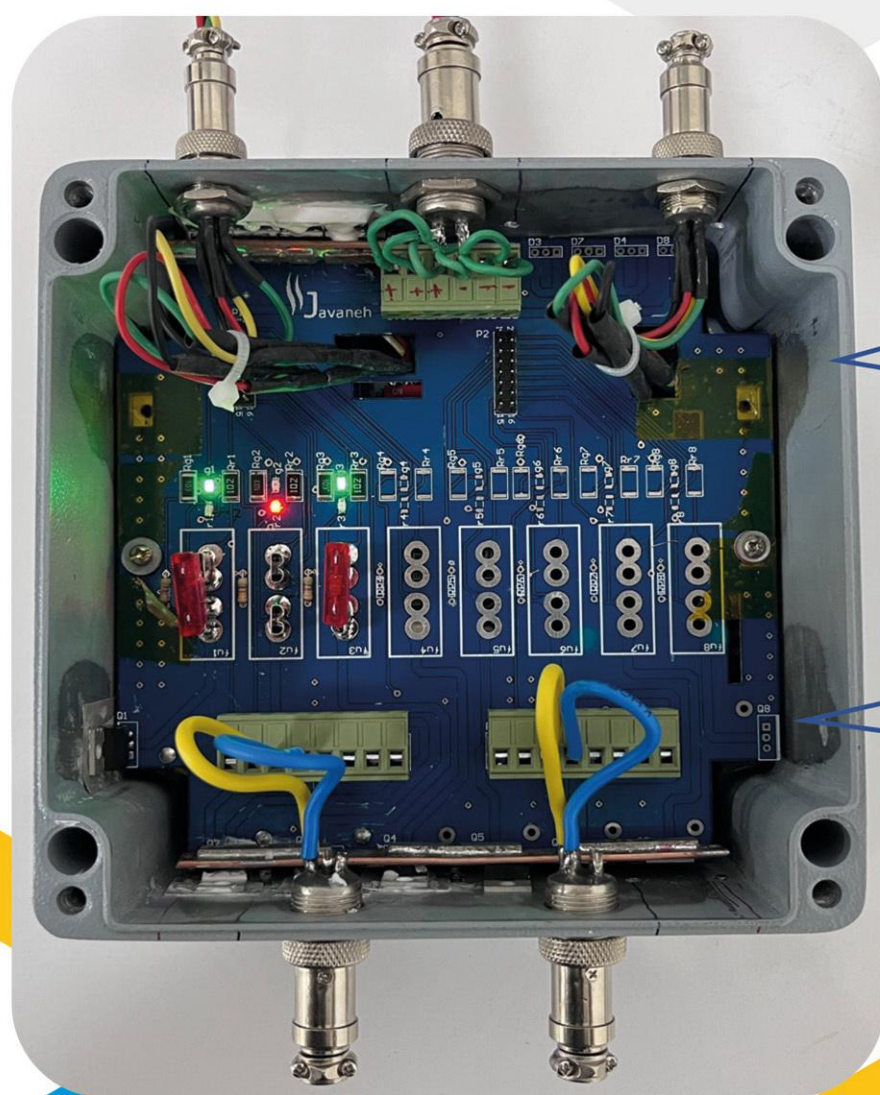
- 24V
- CAN
- 5V
- Loop

- Actuator 1
- Actuator 2
- ...
- Actuator 8

For easy troubleshooting 4 LEDs show the working situation.

The 8 LEDs show the 8 sensors fault.

				Follower Types				
FF	Type	Color	Range	Devices	UpC	DownC	Sample	
14	Normal	Navy	24 VDC, 2 A	Actuator 8x1Pin+ 8Neg.	2xG4+H4	2xG4	Lamp	
15	Power	Pink	24 VDC, 10 A	Actuator 4x1Pin+ 4Neg.	2xG4+H4	2xH2	Hyd. Valve	