

Leader
Hardware

Javaneh Modular Data
Knowledge Base Company

Leader
Software

Sensor
Follower

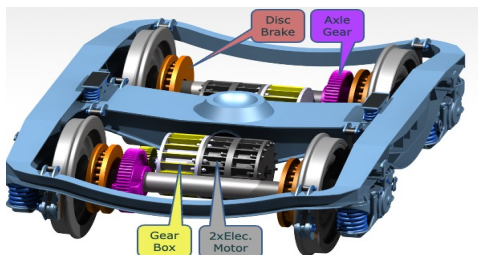
Actuator
Follower



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.



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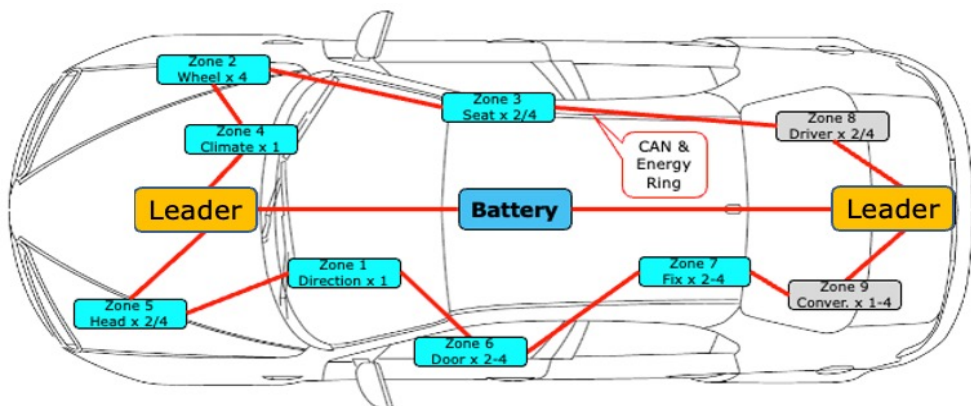
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AUTOMOTIVE
GRADE LINUX

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.



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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 trouble shooting up 4 LEDs show the working situation.

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

The down 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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“Actuator Follower” based on STM32 microcontroller with 2 types as shown in below table. These 24VDC Actuator Followers protected with one-time fuses which shown with LED.



- 24V
- CAN
- 5V
- Loop

For easy trouble shooting up 4 LEDs show the working situation.

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

The 1st row down 8 LEDs show the 8 fuses situation.

The 2nd row down 8 LEDs show the 8 actuators 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