

Welcome

Company overview

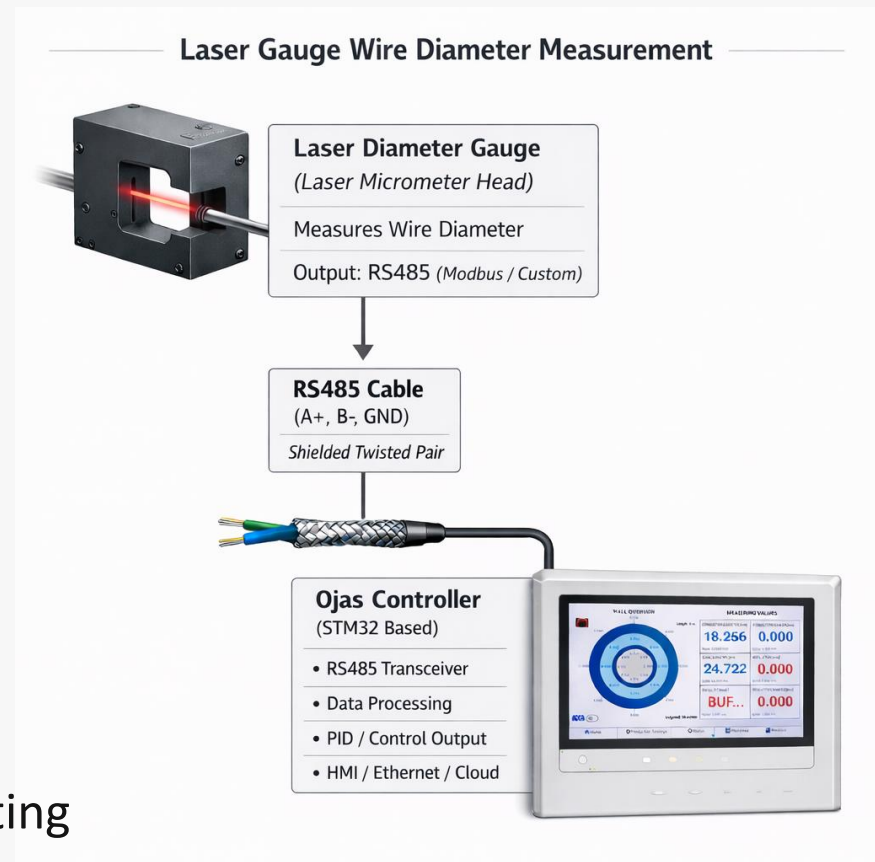
- ❑ Engineering-focused embedded R&D organization
- ❑ End-to-end hardware and firmware development
- ❑ Industrial communication protocol integration
- ❑ Android and Python-based HMI systems
- ❑ IoT-enabled and cloud-upgradeable architectures

Core technical expertise

- ❑ Microcontrollers: STM32, ESP32, Atmel, NXP, Micro-chip
- ❑ Hardware : Schematics and PCB design.
- ❑ Design validation: Signal integrity testing,
- ❑ Industrial interfaces: I2C, SPI, UART, RS-232, RS-485
- ❑ Ethernet (RJ45) and Wi-Fi integration
- ❑ Cloud communication
- ❑ Scheduled reporting (xls, csv, txt)

Cable diameter monitoring and control system

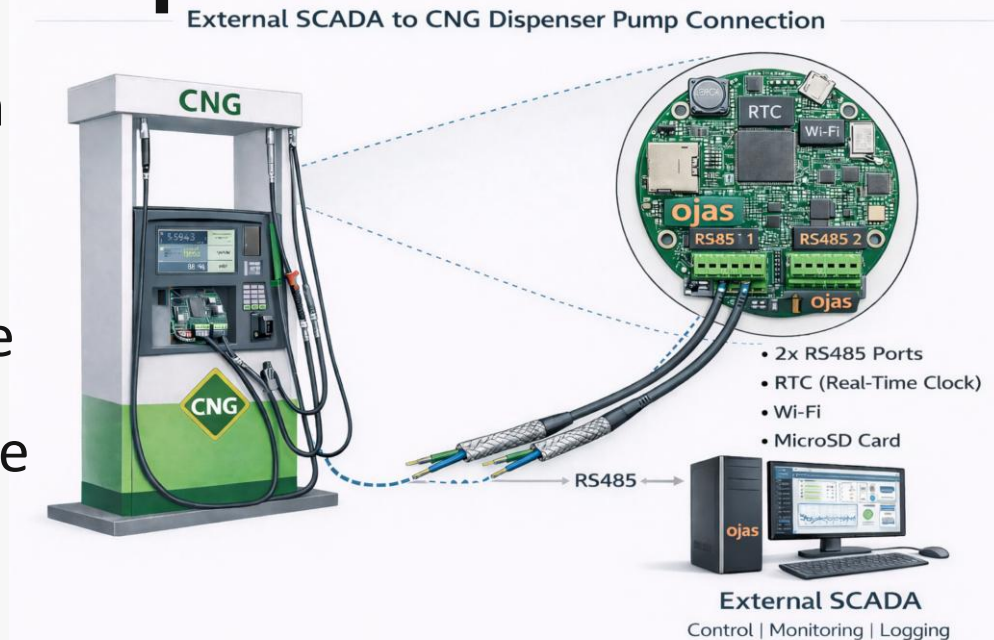
- ❑ High-precision laser-based measurement
- ❑ Closed-loop PID control with VFD integration
- ❑ Android HMI with recipe management
- ❑ Real-time tolerance monitoring
- ❑ Remote diagnostics and IoT reporting



SCADA and Data storage interface module for CNG dispensers

- ❑ Modbus communication interface,
- ❑ Dual RS-485 architecture
- ❑ micro-SD card for storage
- ❑ RTC-based logic control
- ❑ Structured data logging

and reporting
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Precision servo motor control system

- ❑ STM32-based 4-axis motion controller
- ❑ Isolated pulse and direction outputs
- ❑ Recipe-driven motion profiles
- ❑ Android operator interface
- ❑ Industrial-grade signal isolation



8-axis motion controller can be designed

Industrial IoT Data Monitoring System

- ❑ PLC interfacing via RS-485
- ❑ Android GUI with customizable color indicators
- ❑ Cloud-synchronized data updates
- ❑ Configurable scheduled email reports (xls, csv, txt)
- ❑ Role-based access & user management



IoT-based public information display system

- ❑ ESP32-based Wi-Fi controller
- ❑ Cloud-synchronized data updates
- ❑ P10 LED public display platform
- ❑ Scalable smart city architecture



Rope tension monitoring safety system for trucks

- ❑ Multi-channel individual rope tension sensing
- ❑ Configurable upper and lower thresholds
- ❑ Visual and audible alert system



Optional cloud-enabled upgrade

Molten metal monitoring and traceability system

- ❑ RFID-based ladle

identification

- ❑ Temperature, weight and level tracking

- ❑ Python-based monitoring dashboard



- ❑ Local data storage with cloud upgrade option

- ❑ Structured export reports (xls, csv, txt)

Automated production test and validation platform

- ❑ STM32 and ESP32-based test architecture
- ❑ Multi-interface validation (I2C, SPI, UART, RS-485, Ethernet)
- ❑ Analog and DAC verification
- ❑ Python-based guided test GUI
- ❑ Serial number traceability system

Let's build the next industrial solution together

- ❑ Engineering reliable embedded solutions for industrial systems

Thank you